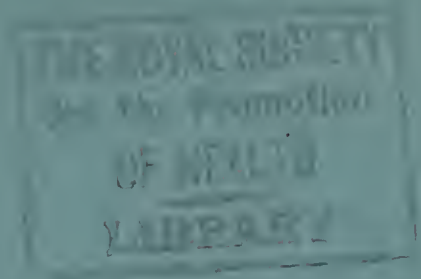


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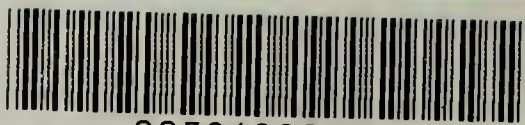


Colony of Fiji

COUNCIL PAPER No. 28.

ANNUAL REPORT
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR
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CONTENTS

	<i>Page</i>
I—ADMINISTRATION—	
Establishment and Staff	1
Appointments, Transfers etc.	1
Legislation	1
Finance	1
Colonial Development and Welfare Projects	2
International Agencies	3
Research	4
II—PUBLIC HEALTH—	
General Remarks	5
Communicable Diseases	5
Vital Statistics	9
III—HYGIENE AND SANITATION	11
IV—PORT AND HEALTH QUARANTINE	12
V—HOSPITALS AND DISPENSARIES—	
Colonial War Memorial Hospital	12
Mental Hospital, Suva	12
Tuberculosis Hospital, Tamavua	12
Fiji Leprosy Hospital, Makogai	12
New Zealand and Fiji Lepers' Trust Boards	13
District Hospitals and Dispensaries	13
Nutrition	14
Eye Conditions	14
Dental Division	14
Departmental Vessels	16
VI—LABORATORY DIVISION	16
VII—TRAINING—	
Suva Medical Centre	18
Central Medical School	18
Central Nursing School and Hostel	19
VIII—METEOROLOGY	20
APPENDICES—	
I—Establishment	21
II—(a) } Notifications of Infectious Diseases	22
(b) }	23
(c) }	24
(d) Distribution of Epidemiological Information	25
III—Returns of Vital Statistics	25
IV—(a) Hospitals and Dispensaries	27
(b) In-patients and Out-patients	28
V—Colonial War Memorial Hospital	29
VI—Tuberculosis Division	34
VII—Mental Hospital	37
VIII—(a) Fiji Leprosy Hospital, Makogai	39
(b) Leper Sub-Station, Korovou, Suva	45
IX—Central Laboratory	46
X—Health Office—Leprosy, Venereal Diseases and Yaws Clinics	47
XI—Suva Gaol	48
XII—Mosquito and Filariasis Control	49
XIII—Nutrition	54
XIV—(a) Central Medical School	55
(b) Dental School	56
XV—Nursing Division	57
XVI—Central Medical Research Library	59
XVII—Ophthalmic Survey	62
XVIII—Returns of Diseases and Deaths	69
XIX—Local Authorities	74
XX—International Airport, Nadi	76
XXI—Meteorology	77



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1956

LEGISLATIVE COUNCIL
FIJI

COUNCIL PAPER No. 28

MEDICAL DEPARTMENT

(ANNUAL REPORT FOR 1955)

I—ADMINISTRATION

ESTABLISHMENT AND STAFF

MEDICAL DIRECTORATE

THE Departmental Establishment is shown at Appendix I to this Report.

Dr. J. M. Cruikshank, C.M.G., O.B.E., Director of Medical Services, Fiji (also Inspector-General, South Pacific Health Service), filled his substantive post during the year.

Dr. R. W. D. Maxwell, Deputy Director of Medical Services, went on overseas leave in May.

2. Senior Staff Changes—Appointments, Transfers, etc.:—

Dr. L. G. Poole, Tuberculosis Control Officer, has accepted an offer of transfer to Nigeria and will be leaving Fiji early in 1956.

Dr. C. H. Gurd, M.R.C.P., was appointed Physician Specialist on transfer from Nyasaland.

Mr. K. J. Gilchrist, F.R.C.S., formerly Surgeon Specialist was appointed full time lecturer in Anatomy and Surgery at the Central Medical School.

Mr. R. I. Cohen, F.R.C.S., was promoted to Surgeon Specialist.

Dr. H. W. Conran returned from leave in February, after obtaining a Diploma in Psychological Medicine.

Dr. H. E. Knowles, who has been undertaking a postgraduate course in radiology, is expected to return to the post of Radiologist in January, 1956.

Dr. A. R. Edmonds was promoted to Principal, Central Medical School, and proceeded on overseas leave in December.

Mr. B. A. Ward, F.R.C.S., Ophthalmologist, resigned in November.

Dr. O. A. McKenzie completed his period of contract service in September, and left the Colony.

Dr. Keating-Clay, Medical Officer, completed her contract and entered private practice in Fiji.

Mr. R. E. Shaw, F.R.C.S., was appointed Medical Officer, South Pacific Health Service.

Dr. A. E. Dugdale was appointed Medical Officer, South Pacific Health Service.

Dr. D. Singh was appointed Medical Officer, South Pacific Health Service.

Dr. P. W. E. Downes was appointed Medical Officer, South Pacific Health Service.

Dr. W. G. McIntosh was appointed Medical Officer, South Pacific Health Service.

Dr. M. J. Purser was appointed Medical Officer, South Pacific Health Service and was seconded to Western Samoa.

Mr. G. A. Patterson was appointed Dental Officer.

LEGISLATION

3. Legislation of medical interest enacted was as follows:—

Public Hospitals and Dispensaries Ordinance (No. 13 of 1955.)

1955 Legal Notice No. 168, increases penalty clause in Pure Food Regulations.

1955 Legal Notice 13–18, amends Town Planning Ordinance.

1955 Legal Notice 58, amends Pure Food Regulations.

1955 Legal Notice 40, amends Suva (Laundries) Regulations.

1955 Legal Notice 150, Public Hospitals and Dispensaries Regulations.

FINANCE

4. Expenditure for year 1955—General District and Special Hospitals:—

	£	s.	d.
Salaries of Medical Officers	17,915	0	0
„ Assistant Medical Practitioners	13,570	0	0
„ Laboratory Staff	6,542	0	0
„ Nursing Staff	46,306	0	0
„ X-Ray Staff	1,802	0	0
„ Clerical Staff	6,999	0	0
„ Dental Staff	3,879	0	0
Wages of Subordinate Staff	50,624	0	0
Rations and Stores	68,361	0	0
Power, Heat, Light, Water and Refrigeration	10,107	0	0
X-Ray Services	1,954	0	0
Laundry	2,512	0	0
Workshop	38	0	0
General Maintenance and Incidentals	1,991	0	0
Hospital paupers burials	24	0	0
Drugs, Instruments and Appliances	28,374	0	0
Clothing, Bedding and Equipment	8,714	0	0
Books and periodicals	224	0	0
Occupational Therapy	14	0	0
	£269,950	0	0

5. Expenditure for the year 1955—Rural Hospitals and Dispensaries:—

	£	s.	d.
Salaries of Medical Officers	5,017	0	0
„ Assistant Medical Practitioners	34,205	0	0
„ Nursing Staff	38,672	0	0
„ Clerical Staff	251	0	0
Wages of Subordinate Staff	12,644	0	0
Rations and Stores	11,735	0	0
General Upkeep and Maintenance	830	0	0
Hospital paupers' burials	7	0	0
Drugs, Instruments and appliances	8,648	0	0
Clothing, Bedding and Equipment	6,227	0	0
	£118,236	0	0

6. Medical Stores and Equipment: Value of Issues to nearest £:—

	Drugs and Instruments		Clothing and Bedding		Total
	Total £	Average £	Total £	Average £	
4 General Hospitals ..	22,244	5,561	4,633	1,158	26,877
2 Special Hospitals ..	4,566	2,283	4,062	2,031	8,628
14 Rural Hospitals ..	4,082	292	1,582	113	5,664
49 Rural Dispensaries ..	4,566	93	46	1	4,612
11 Health Sisters ..	1,660	151	250	23	1,910
112 Assistant Nurses ..	2,015	18	158	1	2,173
6 Religious Missions ..	37	6	....	....	37
*11 Other Medical ..	319	29	196	17	515
*31 Other Departments ..	1,737	56	184	6	1,921
Private Accounts ..	105	....	....	....	105
Cash Sales ..	16	....	....	....	16
Dental Department ..	1,564	....	19	....	1,583
Totals ..	£42,911	....	£11,130	....	£54,041

* Includes drugs and replenishment of First Aid boxes at Public Works and Forestry Stations and Education Department schools, as listed below.

7. Revenue and Expenditure of the Department:—

	1953	1954	1955
Gross Expenditure	£655,575	£683,322	£713,547
Revenue	76,926	71,043	88,233
Nett Expenditure	578,649	612,279	625,314
Percentage of Colony's Expenditure	13 per cent	13 per cent	13 per cent
Expenditure per head of population	38s. 8d.	36s. 9d.	36s. 3d.

The following table shows the expenditure on Medical and Health Services per head of the population, over the past 20 years:—

Year	Total Population	Expenditure per head
1936	201,086	8s. 1d.
1939	215,030	10s. 7d.
1942	233,895	10s. 1d.
1944	246,485	12s. 1d.
1945	254,676	14s. 2d.
1946	260,468	16s. 6d.
1947	269,274	20s. 8d.
1948	277,372	24s. 4d.
1949	284,955	25s. 0d.
1950	293,764	27s. 2d.
1951	301,959	32s. 10d.
1952	312,678	36s. 7d.
1953	320,801	38s. 8d.
1954	333,389	36s. 9d.
1955	345,164	36s. 3d.

COLONIAL DEVELOPMENT AND WELFARE PROJECTS

8. *Suva Medical Centre*—The Suva Medical Centre comprises the new Central Medical School building and the Central Nursing School buildings which were occupied in 1954 and 1955 respectively. These institutions, together with a new Out-patient Department and Maternity wing, were provided from a free grant of £F240,000 from the United Kingdom Colonial Development and Welfare funds. The new Out-patients Department should be in operation during 1956, but the Maternity wing is still under consideration. More information concerning the Central Medical School and Central Nursing School will be found under these headings in subsequent pages, and in Appendices XIV and XV.

9. *Tuberculosis Survey*—United Kingdom Colonial Development and Welfare funds were available for the tuberculosis survey during the period 1949 to 1953. Since January 1954, the tuberculosis survey and control measures have been undertaken from Colony funds. A report on the tuberculosis division is contained in Appendix VI.

10. *Central Medical Research Library*—The Central Medical Research Library, which was instituted by a Colonial Development and Welfare grant in 1949, has been continued by Colony funds. During the year the library was transferred from the Colonial War Memorial Hospital to the Central Medical School. The library continues to be very popular with the medical staff and students. Further details are contained in Appendix XVI.

11. *Filariasis Investigations*—Mr. C. B. Symes, O.B.E., Entomologist from Her Majesty's Overseas Research Service, continued his investigations into filariasis and mosquito control under the Colonial Development and Welfare grant of £F17,784. These investigations were commenced in January 1954. Additional details regarding the filariasis and mosquito control division will be found under the heading Departmental Research, and at Appendix XII.

INTERNATIONAL AGENCIES

12. *World Health Organization Fellowships*—The Government of Fiji has been the recipient of Fellowships for the following officers, some of whom have returned to Fiji on completion of their post-graduate training.

<i>Year</i>	<i>Medical Officer</i>	<i>Course</i>	<i>Country</i>
1953–54	Dr. H. W. Conran, Fiji	Psychological Medicine and Mental Hygiene	United Kingdom
1953–55	Dr. H. E. Knowles, Fiji	Radiology	United Kingdom
1955	Mr. R. I. Cohen, Fiji	Thoracic Surgery	U.K. and U.S.A.
1955	Dr. D. W. Bookless, Fiji (Tenable 1956)	Public Health	United Kingdom
1955	Dr. W. L. Verrier, Fiji (Tenable 1956)	Statistical Methods	United Kingdom

13. The World Health Organization also provided a six months Fellowship to A.M.P. Tamasese, Western Samoa, to study psychiatry and mental hygiene under Dr. Conran, Medical Officer, Fiji, in charge of the Mental Hospital, Gaol and Approved School.

14. A World Health Organization short term Fellowship enabled Dr. W. L. Verrier, Medical Officer, Fiji, in charge of the WHO/UNICEF Yaws Control Programme, to attend the International Yaws Control Conference held in Nigeria in November. Arrangements have been made for Dr. R. K. Bowman, Chief Medical Officer, Tonga, to visit Fiji in February, 1956, on a short-term World Health Organization Fellowship to observe the serology and mass treatment associated with the Fiji Yaws Control Programme.

15. Subject to funds being available, the World Health Organization is reserving a Fellowship for an Anaesthetist on the Fiji establishment to undertake a special course in anaesthesia as related to chest surgery, during 1956.

16. *Yaws Control*—*World Health Organization and United Nations Children's Fund*—A Colony-wide yaws control programme commenced in Fiji in December, 1954, with the assistance of the World Health Organization and the United Nations Children's Fund. For this purpose a Senior Medical Officer in Fiji was placed in charge and the World Health Organization provided a field Medical Officer and a Serologist. The first part of the programme was devoted to a pilot serological project. Serology was performed on approximately 8,000 people in an area predominantly Fijian and similarly in three other centres where the population was predominantly Indian, where approximately 2,000 individuals were serologically tested. The pilot project was also used to train six teams in preparation for the mass treatment campaign. Each team consists of an Assistant Medical Practitioner and a locally trained nurse specially selected for the programme. Data derived from the serological project reveals that the incidence of positive serology from yaws ranges from 10 per cent to 70 per cent depending upon the endemicity of the infection. When the yaws treatment teams completed their training they were assigned to various districts into which the Colony has been divided for this purpose. Commencing in early 1956, the serological project will be repeated to determine the efficacy of the treatment. Penicillin aluminium mono-stearate (P.A.M.) to World Health Organization specification, has been used with the exception of approximately 1,000 serologically positive individuals who received Benapen. In view of the endemicity of yaws and the communal life of Fijians, practically all the Fijians, the majority of whom live in rural areas, may be regarded as contacts. For this reason it was considered to be advantageous for the entire Fijian population to receive penicillin. Whether this is extended to the Indian population as a whole depends upon consideration of data which are now being studied. By the end of 1955, approximately 85,000 of the Fijian population had received penicillin as part of the mass treatment campaign.

17. *Central Medical School*—In 1954 agreement was reached between the Fiji Government and the World Health Organization whereby this Organization would provide two lecturers to teach biology, biochemistry and physiology at the Central Medical School for a period of two years. The Department is grateful to the Dean of the Medical Faculty of the University of Otago, Sir Charles Hercus, who recruited these lecturers. They took up their appointments at the Central Medical School in February. In addition, the World Health Organization has made funds available to the extent of \$4,000 to provide appropriate equipment for the teaching of these subjects.

18. *World Health Organization—Nursing Education Seminar*—The Government of Fiji invited the World Health Organization to hold a second Western Pacific Regional Nursing Education Seminar in Fiji.

19. Fifty-four nursing participants and discussion leaders from twenty countries in the Region attended the Seminar in Fiji from 4th to 28th July, 1955. In officially opening the Seminar, His Excellency the Acting Governor of Fiji, the Honourable A. F. R. Stoddart, C.M.G., welcomed to Fiji the representatives from many lands who had gathered to attend the Seminar. After referring to the training of nurses, the variety of problems associated with the widely differing background from which pupils are drawn and the varying conditions under which they will work when trained, His Excellency also stated that it was very gratifying that Fiji had been chosen as the meeting place for this Seminar. The countries represented were: Australia, Brunei, Cambodia, China, Fiji, Guam, Hong Kong, Japan, Korea, Malaya, Netherlands New Guinea, New Zealand, Philippines, Sarawak, Singapore, Papua-New Guinea, Tonga, United States Trust Territory of the Pacific Islands, Vietnam and Western Samoa.

20. At the commencement of the Seminar a symposium was held at which the Director of Medical Services outlined the administration of the health services in Fiji; the Nursing Superintendent described the nursing service, and Principals of the Central Medical School and the Central Nursing School respectively addressed the participants on the training of medical students and student nurses in Fiji.

21. Study groups were formed under the leadership of consultants in education, nursing education, social anthropology and educational psychology. The Seminar afforded an opportunity for the participants to compare problems encountered in the nursing services in the various territories and to receive guidance from the consultants in how to deal with these problems.

22. A very full curriculum was prepared; instruction and discussions were related to the following topics:—

- (1) The basic education of nurses with particular reference to clinical nursing practice.
- (2) The relationship of hospital and nursing service administration. (For this subject Matrons, Sister Tutors, associated with Schools of Nursing, Midwifery and other health services, took an active part).
- (3) The preparation of nursing teachers and post-graduate programmes and the relation of such programmes to the requirements of the health services of a country.
- (4) The preparation of auxiliary nurses and midwives.

23. An opportunity was provided for the participants to observe the functioning of appropriate medical and health sections of the Department associated with projects being discussed. Visits were made to the Epidemiological and Medical Statistics Office, a rural hospital, and a village Infant Welfare Clinic at which the village Women's Committee assists the visiting Health Sister.

24. *Assistant Medical Practitioners' Refresher Course*—The World Health Organization has made arrangements and has provided two consultants for a period of three months to conduct two Assistant Medical Practitioner Refresher Courses of six weeks each, in environmental sanitation, commencing in June in Western Samoa. The Fiji Government is being invited to send selected candidates to this Course.

25. *South Pacific Commission*—Dr. L. G. Poole, Acting Deputy Director of Medical Services, Fiji, attended as an alternate for the Director of Medical Services at the meeting of the South Pacific Commission Research Council held in Noumea in June, 1955. A close liaison is maintained between the Executive Officer of Health for the South Pacific Commission, and the Director of Medical Services, which facilitates the development and execution of projects in the field of health. Frequent visits are made to Fiji by Research Officers of the Commission assigned to health, economic development and social development projects. The South Pacific Commission Visual Aids Officer had discussions with Nutrition and Public Health Officers of the Fiji Medical Department during her visit in the latter part of 1955.

DEPARTMENTAL RESEARCH

26. *Filariasis*—The data accumulated during the filariasis survey which was extended to cover the period 1944–1955, was so voluminous that it was decided to produce the report of this work in bound mimeograph form in the first instance. Copies of this report have been sent to individuals and organizations particularly interested in the control of this disease. The data presented in this report concerns 1,049 villages and 51 schools located in 83 districts in the Fiji Archipelago. It has entailed the clinical and blood examination of over 70,000 Fijians of all ages and both sexes. Results of various dosages of Hetrazan are also included. It may be possible to further edit and summarize this report to make it suitable for publication in a Tropical Disease Journal.

27. The investigations commenced in 1954 by Mr. C. B. Symes, O.B.E., of Her Majesty's Overseas Research Service, have continued. This work has shown that mosquitoes other than the *Aedes pseudoscutellaris* are serious vectors of filariasis in Fiji. This discovery further complicates the control of filariasis by the use of insecticides, as their breeding and resting habits differ from that of the *Aedes pseudoscutellaris*. Further details will be found in Appendix XII.

28. *Demography*—Dr. W. L. Verrier, Senior Medical Officer, is maintaining his long-term inquiry into the demographic structure of the Fiji race. He is also engaged in the inquiry, sponsored by the Fiji Society, into the special problem of the rate of natural increase among the people of Rotuma.

II—PUBLIC HEALTH

29. *General Remarks*—The Director of Medical Services is Chairman of the Central Board of Health which controls and co-ordinates public health activities throughout the Colony.

30. Each District Medical Officer in the four districts, into which the Colony is divided for administrative purposes, is a Medical Officer of Health to the Local Authorities within his District; and in this capacity he is assisted by a trained staff of Health Inspectors, Health Sisters, Assistant Health Inspectors, Assistant Nurses, and other junior staff.

31. The Colony is divided into 48 areas each having an Assistant Medical Practitioner at a Rural Hospital or Rural Dispensary. He is responsible to his Medical Officer of Health in matters of communicable diseases. Each of the four administrative districts forwards to headquarters a weekly statement of the incidence of notifiable infectious diseases within its boundaries. Guidance is then given when needed by headquarters so that preventive or controlling measures may be as thorough as possible.

32. Fiji as a participating member of the South Pacific Health Service takes part in the monthly telegraphic exchange of epidemiological information among territories concerned. During the year the Central Leprosy Register, the Central Tuberculosis Register and headquarters of the Yaws Control Programme were combined with the Epidemiological and Medical Statistics section in one building under the direction of Dr. Verrier. Territories and organizations with whom epidemiological information is exchanged are listed in Appendix II (*d*).

COMMUNICABLE DISEASES

33. *Influenza*—The number of cases of influenza notified during the year was 5,437. This is a reduction in the number of cases reported during the previous year.

34. *Enteric group of diseases*—Twenty-four cases of typhoid were reported during the year. A small outbreak of typhoid in the Southern district contributed to the increase over the number of cases reported last year. Otherwise the progress in the reduction of typhoid fever would have continued.

35. *Dysentery*—There were 37 cases of amoebic dysentery as compared with 26 during the previous year. All cases of amoebic dysentery reported as such have been confirmed by laboratory findings. The notifications of bacillary dysentery at 70 was half the number of cases reported during 1954, and 143 cases of unclassified dysentery was an increase of approximately 50 over the previous year.

36. *Infantile diarrhoea*—The number of cases of this condition was approximately the same as for the previous year, 1,542 cases as opposed to 1,527 cases.

37. *Pertussis*—The total number of cases of pertussis notified was 627 as compared with 422 during the previous year.

38. *Yaws*—5,274 cases of yaws were notified, but this by no means represents the incidence of this disease. In the areas where the Yaws Control teams have been operating practically no new cases of this infection have been notified—19 as opposed to 26 in 1954.

39. *Tuberculosis*—The number of new cases notified during 1955 was 745 compared with 667 in 1954. See also Appendix VI.

40. *Hookworm*—The 274 cases recorded of hookworm have been confirmed by laboratory examination, although it is recognized that this disease is prevalent throughout the Colony, particularly among the Indian and Fijian population. Although anthelmintics are given at hospitals, dispensaries and in the schools, permanent reduction in the prevalence of this infestation depends upon the continuing health education programme and the exhortation to instal and use more latrines in the rural areas.

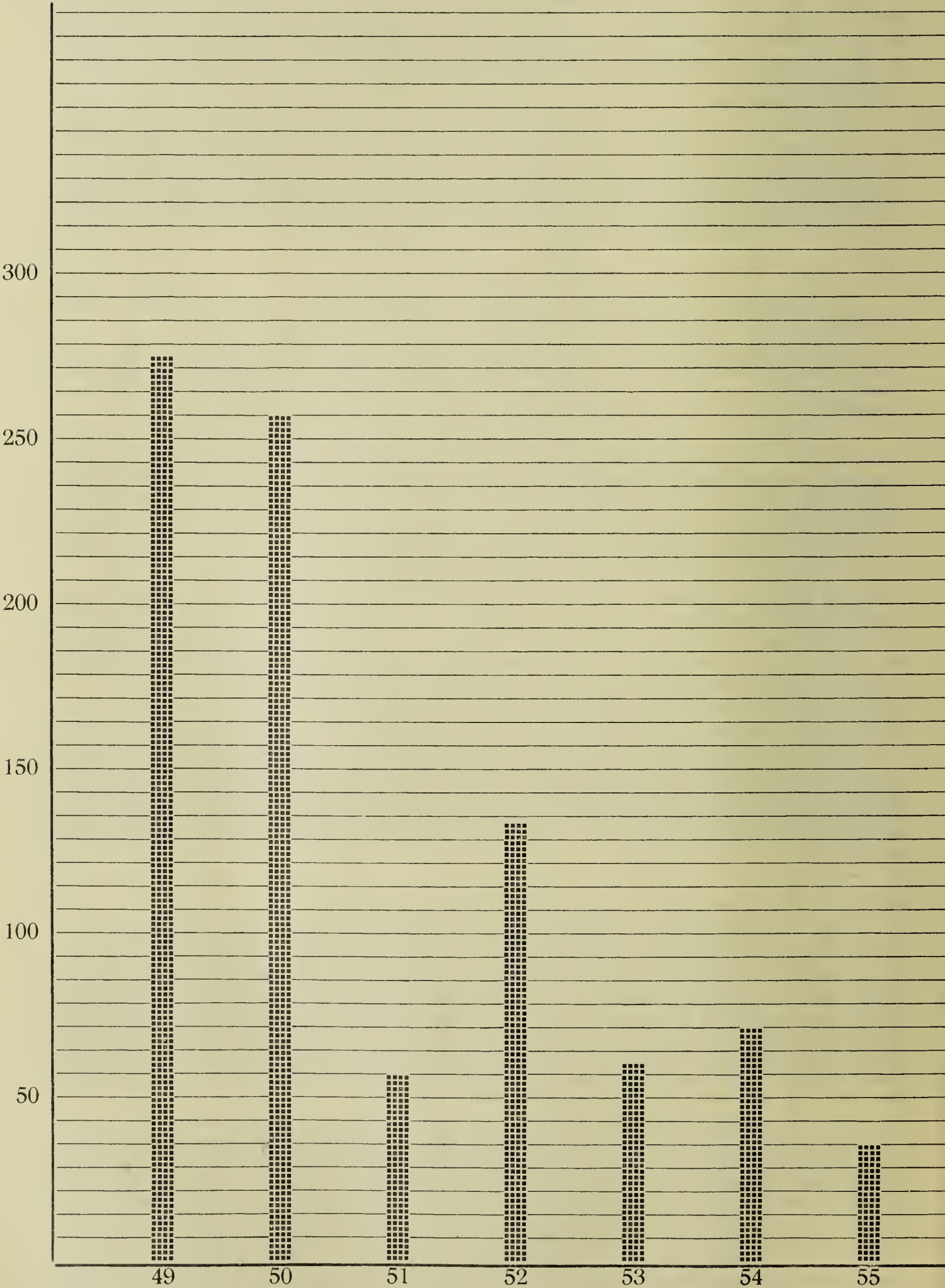
41. *Dengue Fever*—36 cases have been notified during the year as compared with 72 cases notified in the previous year.

42. *Venereal Diseases*—Syphilis is seldom encountered among Fijians, many of whom have had a previous yaws infection. Gonorrhoea has shown an increase, and so also has syphilis.

43. *Leprosy*—There has been a further decline in the number of new cases of leprosy notified during the year. Patients who have been discharged from the Leprosy Hospital, and are resident in Fiji, come under the provisions of the Leper (Conditional Discharge) Regulations which provide for their periodical examination and imposes on them a duty to report to the medical authorities at stated times for examination. For the first three years after the date of their discharge from hospital they are seen every three months. For the next three years they are seen every six months, and after that they are examined annually as long as they remain in the Colony.

44. At each examination, in addition to the usual clinical scrutiny, a “ slit-smear ” is taken on a microscope slide and the slide is forwarded to the Pathologist in the Central Laboratory in Suva for staining and examination. A copy of the report goes to the medical authority making the examination, and a copy is sent to the Central Leprosy Registry in Suva. The Central Leprosy Registry maintains a full record of each discharged patient, and assumes the duty of tracing patients wherever they may be, and bringing them to review. In a population scattered over more than 100 islands, this is a task of some difficulty, but the success of the scheme is indicated by the fact that out of 511 patients discharged from hospital and assumed to be still living, only 13 have become untraceable. And even these “ untraceable ” patients are not regarded as being wholly lost because continuous searching eventually finds them or establishes that they have died.

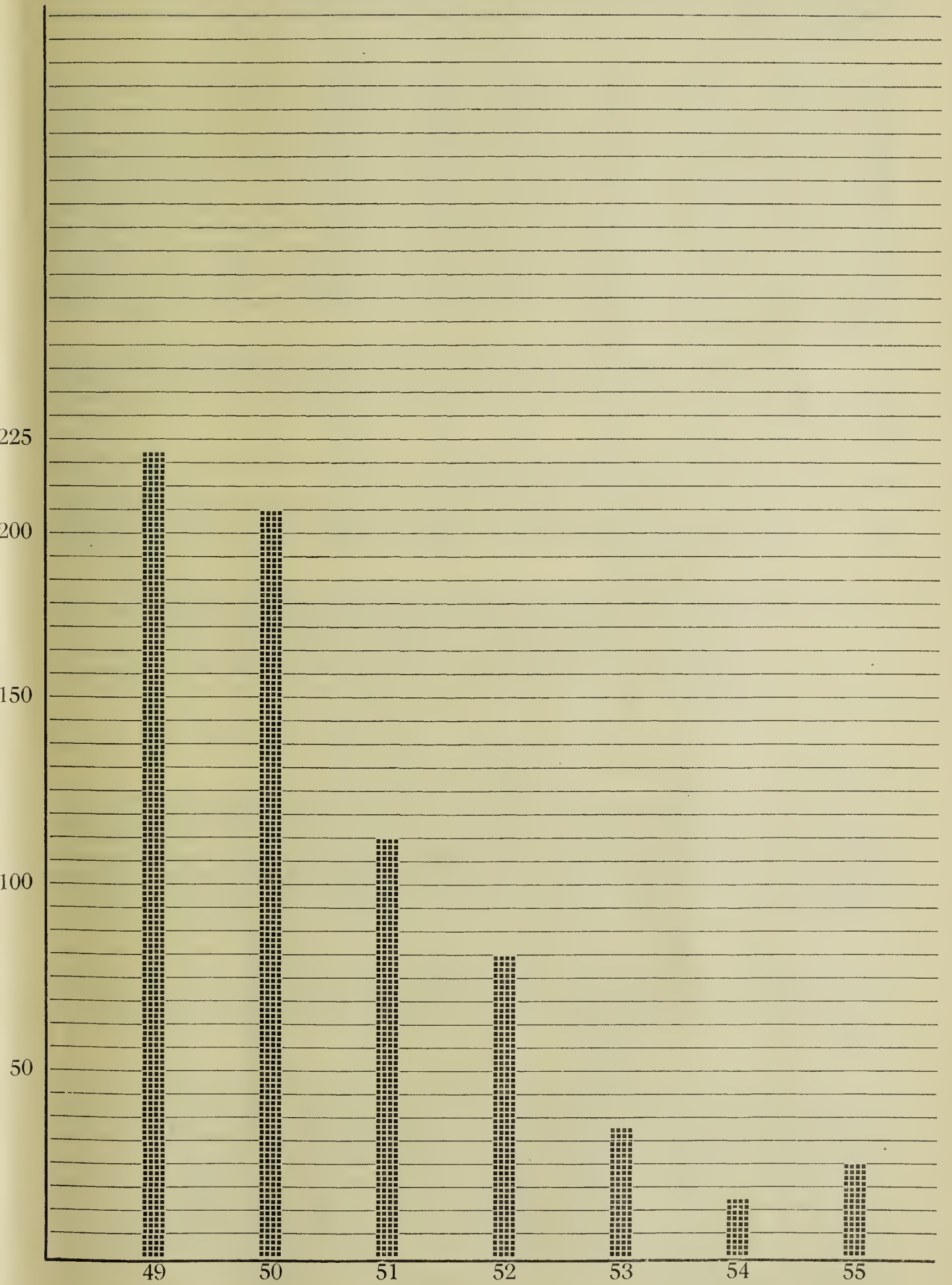
DENGUE FEVER
1949-1955
(Cases Notified)



ENTERIC FEVERS

1949-1955

(Cases Notified)



45. The treatment of discharged patients is now standardized at the exhibition of two tablets of "Avlosulfon" weekly, giving a weekly dose of 0.2 grams. The tablets are issued in batches of eight (one month's supply), and on starting this scheme it became at once apparent that it was not satisfactory simply to hand a patient eight small tablets and ask him to take them home and swallow two a week. The question of packaging was important so as to ensure that the tablets were ready for consumption on the recommended dates. Also, it was considered important to keep an unequivocal record both of the issue to the patient of a small quantity of sulphone, and of the issue to junior medical personnel of larger stocks of this drug. It was thought advisable to take steps to ensure that junior medical staff should not have available to them, under conditions insusceptible of control, large stocks of drugs which might be used in the private illicit treatment of undisclosed leprosy.

46. The "Makogai Sandwich" was therefore devised and is manufactured in quantity by the junior staff of the Central Leprosy Registry. The sandwiches are issued to medical staff in packages of ten sandwiches. Each sandwich is serially numbered and a record is made of the issue of these numbers to a particular medical station. When medical staff see a discharged leprosy patient (and patients are instructed to report each month to their appropriate medical station), they issue that patient with one sandwich. At the same time the medical station fills in the printed label, which forms part of the sandwich cover. This states the name, address and serial number of the patient to whom the drug is given, and also the answers to four questions aimed at revealing any toxic reaction to the exhibition of the drug. The patient is told to take the sandwich away, and poke a stick through one hole on Sunday and swallow the tablet which comes out. This process is repeated every Sunday and Wednesday until the sandwich is finished, when the patient returns to the medical station for re-examination and the issue of a new sandwich. This process is continued for three years from the date of discharge, and the exhibition of sulphone is then to be discontinued. This system is now in its third year.

47. It is proposed in the case of each patient who has taken sulphones in this way for three years, to leave a period of at least one year when no sulphones will be taken, so that an estimate can be made of the risk (if any) of recurrence of the disease if the maintenance dose of sulphone is stopped after three years.

48. The label from the "Makogai Sandwich" is returned by medical staff to the Registry and the information is incorporated into records:—

- (1) A card is kept of each particular patient so as to see with what regularity each patient attends to receive his sandwich. Continual scrutiny of these cards makes it possible to note any lapses, and to send out reminders to medical staff to get the patient in for re-issue of the drug.
- (2) A record is made of the issue of packets of sandwiches to each medical station, and when it is observed, from this record, that a station's stock is exhausted from 50 per cent to 90 per cent, according to the distance from the Central Registry, and the estimated rate of consumption of sandwiches, a new supply of sandwiches is automatically sent out by the Registry to that station. Medical staff in the country, therefore, are relieved from the burden of attending to their stock-in-hand of sulphones.

49. Experience with patients on the above maintenance dose has shown that it has not been necessary to issue concurrent iron medication against anaemia.

50. Now that it has been shown, under the pragmatic test over almost three years, that the central control is effective, although known contacts of new cases of leprosy are examined when the case is discovered, it is now proposed to go on to the next stage in the control of leprosy—the follow-up of all family contacts over an extended period. This, of course, is an undertaking rather larger than that of the original Registry. It remains to be seen how far existing staff and facilities can bring this about. It is felt, however, that the survey of contacts is to be placed high among the desirable methods for eradication of leprosy. For further details see also Appendix VIII (a).

51. *Tetanus*—An organized anti-tetanus campaign was instituted during the year using triple vaccine as a preventative also against diphtheria and pertussis. Due to an outbreak of poliomyelitis during the latter part of the year this inoculation campaign was temporarily suspended, but will be resumed early in 1956. It is hoped in this way to reduce the incidence of tetanus, which is of a severe type in Fiji. 37 cases were notified in 1955 as against 45 cases in 1954.

52. *Poliomyelitis*—In the last quarter of 1955 a small outbreak of poliomyelitis occurred in Fiji, confined to Viti Levu and the immediately neighbouring islands. In all 14 cases were notified; one of which was fatal, a European adult of one year's residence in Fiji. Europeans who have been resident in Fiji for only a few years appear to be more susceptible to the infection. In the first two cases notified, which were European, it was possible to establish a direct contact with visitors to Fiji arriving by a cruise ship. It is considered that the local population contain in their blood antibodies against at least some of the strains of poliomyelitis virus. An effort is being made to determine the extent of immunity among residents native to Fiji, and for which strains of the virus immunity is present. During the last two weeks of December, 1955, a few confirmed cases of poliomyelitis were notified from Western Samoa. If the pattern of this outbreak resembles that which has occurred in 1952 and 1955 in Fiji, it is anticipated that the disease in Western Samoa will also be self-limiting.

53. *Trachoma*—The Ophthalmologist who was appointed to Fiji in February 1955, reports that trachoma in a mild form is prevalent in Fiji; that its incidence is considerably higher among Fijian children than among Indians of the corresponding age group. The examination of school children for evidence of trachoma is continuing. The results so far indicate that prevalence of trachoma ranges from 30 per cent to 70 per cent in the school children, being considerably higher in the rural schools. The infection would appear not to be of a virulent type, as the prevalence of scarring and ultimate blindness frequently associated with this disease is not encountered. The cases diagnosed as trachoma resulting from the recent survey will not be included in the summary of notifications of this disease until further study reveals the true picture concerning its prevalence.

54. General tables of the incidence of these diseases are given at Appendix II to this Report.

55. This table shows the trends in twelve notifiable diseases for the past seven years:—

	1949	1950	1951	1952	1953	1954	1955
Dengue	280	274	58	135	60	72	36
Dysentery . . .	655	403	303	267	243	244	143
Enteric group ..	223	207	111	82	35	13	26
Gonorrhoea .. .	260	297	232	208	220	211	322
Hepatitis Infective ..	13	32	25	41	29	45	53
Infantile diarrhoea ..	798	918	620	750	2,197	1,527	1,542
Influenza	3,566	5,293	3,280	4,478	3,179	8,496	5,437
Leprosy	46	39	49	33	40	26	19
Pertussis	350	114	234	773	245	422	627
Syphilis	54	27	23	21	23	12	48
Tetanus	30	27	31	38	33	45	37
Tuberculosis .. .	448	373	234	453	498	667	745

56. A division of the intestinal diseases among the indigenous and non-indigenous population is made in the table below:—

	1949	1950	1951	1952	1953	1954	1955
Dysentery—							
Fijians	453	80	73	81	80	67	61
Others	202	323	230	186	163	177	82
Enteric group—							
Fijians	87	100	36	31	20	6	17
Others	136	107	75	51	15	7	9
Infantile Diarrhoea—							
Fijians	511	680	484	455	1,562	934	881
Others	287	238	136	395	635	593	661

This table indicates:—

- (a) That sanitation among the Fijian villages is improving. This may be attributable to the improvement in health education promoted by the rural Health Sisters and locally trained assistant health nurses in the districts.
- (b) That the anti-typhoid inoculation campaign has given a high degree of protection to all races.
- (c) That there was no widespread or explosive outbreak of infantile diarrhoea during the year. It is still more prevalent among Fijians.

VITAL STATISTICS

57. The Registrar-General's estimates of the population of the Colony at the end of 1955 is given in Appendix III.

58. The average annual increase in the population of the Colony during the decade 1936/45 was 6,126, and for the period 1946/54 was 9,205. That the trend is ever upward is shown by the estimated increase during 1955 of 11,875.

59. The average annual increase for the two major races for the period 1946/55 was:—

Fijians	3,847
Indians	5,550

60. The rates of natural increase for the whole population of the Colony have been:—

1951	27·22	per mille
1952	28·17	„
1953	25·98	„
1954	31·48	„
1955	32·45	„

61. Among crude birth-rates may be noted the following:—

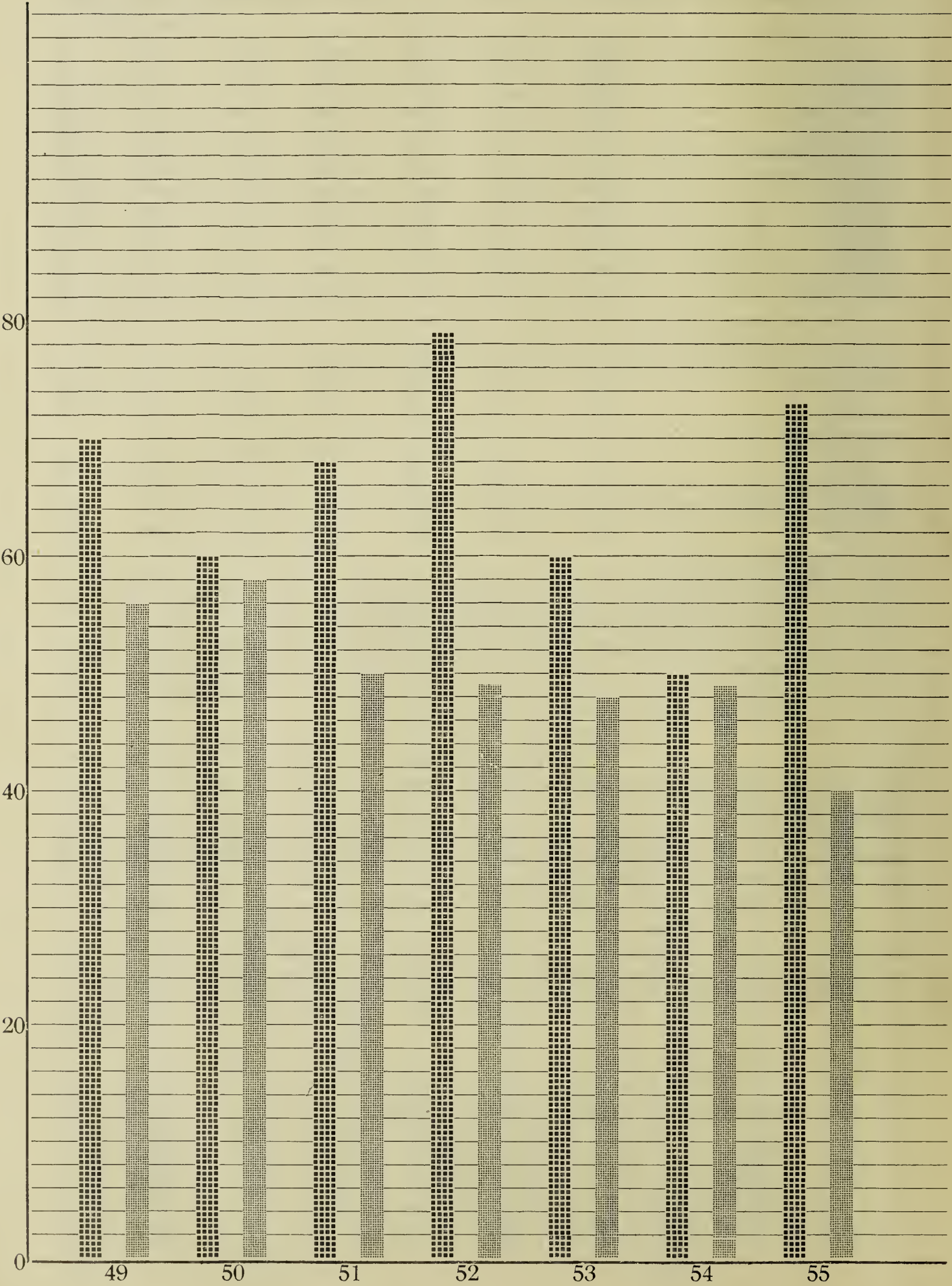
	1951	1952	1953	1954	1955
Fijians	34·42	36·67	35·18	37·00	34·17
Indians	42·45	44·69	46·08	43·17	42·26
Whole Population .	37·88	40·02	40·32	39·61	37·86

62. The Infant Mortality Rates for the past three years show:—

Fijians	60, 50, 73
Indians	48, 49, 40

INFANT MORTALITY RATES
1949-1955

 = Fijians
 = Indians



II

III—HYGIENE AND SANITATION

63. The administration of the Public Health Ordinance of 1936 is vested in the Central Board of Health and by that Board is delegated to 22 Local Health Authorities. Advisory functions are shared between the Director of Medical Services and the Central Board of Health, which body receives reports from, and where necessary directs the activities of, the Local Health Authorities. The minutes of 100 meetings held by Local Authorities were forwarded to the Central Board of Health during 1955.

64. All Medical Officers in rural areas are Medical Officers of Health to the Local Authorities of the sanitary districts in which they are stationed. Ten Health Inspectors with full qualifications, 23 Assistant Health Inspectors (locally trained) carry out duties under the Ordinance, while the Chief Health Inspector is also Secretary to the Central Board of Health. Public health activities are also carried out by 12 Health Sisters and their staff of 149 locally trained nurses engaged in district nursing.

65. Port Health and Quarantine activities in the capital city of Suva, are in charge of the District Medical Officer, Southern who, as Chief Quarantine Officer, is responsible under the Quarantine Ordinance for that work. The Central Board of Health is, by statute, the Health Authority for the special area covered by the International Airport at Nadi on Viti Levu.

66. The return of the work done by all Local Health Authorities for each of the years now reported on, includes the following figures:—

	1952	1953	1954	1955
General Sanitary Inspections ..	64,031	56,766	42,716	78,036
Sanitary defects remedied ..	41,243	19,985	23,090	53,018
Written notices issued	3,219	3,957	4,609	7,827
Closing Orders issued	172	324	57	110
Demolition Orders	48	118	212	40
Buildings demolished	93	184	35	64
Food premises inspected	5,566	6,879	1,882	5,049
Improvements effected	230	1,727	461	1,047
Foodstuffs condemned in lb ..	14,367	46,363	27,696	57,445
Food samples taken	357	452	426	292

67. *Supervision of New Buildings*—The improvements mentioned in previous reports regarding the standard of new housing within the Colony continue to show that the general public are demanding a more satisfactory type of building than heretofore. Dwelling houses are of a substantial nature with an adequate number of rooms to prevent overcrowding and the varied colour scheme, which can be seen suggest that the owners are taking much more interest in their properties than they did in the past.

	1952	1953	1954	1955
New applications received ..	1,133	1,881	1,151	2,024
Declared value	£631,213	£858,101	£1,797,455	£2,263,460

68. Legal proceedings were as follows:—

(a) For offences under the Public Health Ordinance—

	1952	1953	1954	1955
Cases taken to Court	23	61	225	165
Convictions obtained	21	59	203	163
Penalties imposed	£62	£149	£370	£373

(b) For offences under the Pure Food Ordinance:—

	1952	1953	1954	1955
Cases taken to Court	22	39	42	30
Convictions obtained	19	37	41	25
Penalties imposed	£161	£278	£366	£154

69. *Sewage Disposal*—The number of septic tanks installed throughout the Colony continues to rise in number and owing to the increase in inspections in the field, due mainly to the more energetic type of assistants graduating from the school, the number of concrete slabs and pedestals shows a considerable increase.

	1952	1953	1954	1955
Septic Tank proposals passed	42	58	51	67
Latrine-slabs sold	390	267	452	716

70. *Garbage Disposal*—The organized collection of household and business garbage throughout the Colony continues to expand. In some districts it has been possible for the Health Inspector to convince his Local Authority of the more modern methods of garbage disposal. These Local Authorities have purchased Ferguson tractors with bulldozing blades and garbage is now being used to fill in depressions throughout these townships and so help to reduce the mosquito population.

71. *Rat Destruction*—Towards the end of the year small supplies of *Warfarin* came to hand and have been used with great success. It is proposed to institute a large anti-rat campaign in 1956.

	1952	1953	1954	1955
Number of poison baits set ..	.....	.....	.....	915
Number of traps set	11,988	4,781	12,640	9,977
Number of rats caught	3,640	934	1,875	1,720
Rats sent to laboratory	89	48	78	63

No rats were found to be infected with plague.

72. *Water Supplies*—Much talk has taken place over the last year regarding improvement to water supplies and recently final drawings and plans have been received for improvements to the Suva water supply. No cases of disease attributable to water-borne infections were reported during the year.

Number of samples taken—

	1952	1953	1954	1955
Bacteriological test	152	104	179	143
Chemical test .. ..	....	....	....	....
Sea water (public baths) ..	45	13	13	20

IV—SEAPORT AND AIRPORT HEALTH AND QUARANTINE

73. There has been no alteration in the ports of entry for overseas ships during the year. Suva and Lautoka continue to be the only ports of entry from malarial regions. The number of aircraft landing at the International Airport at Nadi continues to increase.

74. During the period under review the following were the numbers concerned:—

	1952	1953	1954	1955
Ships given pratique . . .	142	194	206	222
Landing passengers	1,974	1,954	2,385	2,902
Aircraft given pratique ..	980	921	1,066	1,219
Landing passengers	6,655	7,953	10,615	12,597
Overseas vessels fumigated ..	16	7	15	19
Local vessels fumigated ..	75	50	92	72
Aircraft treated with aerosols	379	316	373	384
International Deratization—				
Certificates	1	3	....	1

75. The Nadi Airport is 130 miles by road from the capital, but by the local air service it can be reached in approximately one hour. The Medical Officer of Health and Health Inspector, with assistants, carry out the general sanitary measures of this airport. During the year direct control of mosquito inspectors engaged within the airport area have been taken over by these officers.

76. *Mosquito and Filariasis Control*—A rigid inspection of surface vessels and aircraft at ports of entry by the Health Staff was maintained during the year. At the International Airport at Nadi residual spraying of buildings and dwellings was carried out.

77. Filariasis Control Inspectors were stationed in most areas of the Colony. Their routine duties include regular visits to villages and schools giving advice for the eradication of *Aedes psuedoscutellaris* the main vector of filariasis in Fiji.

V—HOSPITALS AND DISPENSARIES

78. At the Colonial War Memorial Hospital, which has 275 beds for general purposes, located in Suva, rotation of Assistant Medical Practitioners has continued whereby immediate graduates will do three months in each department. A similar arrangement has been instituted at Lautoka Hospital. A system was introduced during the year whereby a number of the older Assistant Medical Practitioners are brought into these hospitals for short refresher courses. Details concerning the Colonial War Memorial Hospital, the Colony's largest general hospital, and a list of hospitals and dispensaries are recorded in Appendices IV (a) and V.

79. The Mental Hospital of 100 beds is also located in Suva. Details are contained in Appendix VII.

80. The Tuberculosis Hospital of 313 beds is located on an elevated site at Tamavua, approximately five miles from the centre of Suva. Details are contained at Appendix VI.

81. The Fiji Leprosy Hospital which will accommodate approximately 800 patients is located on the island of Makogai about sixty-five miles distant from Suva, but only thirty miles from Natovi on the eastern coast of Viti Levu. Accommodation is also available for patients from Western Samoa, Eastern (American) Samoa, the Cook Islands, Niue, Tonga, the Gilbert and Ellice Islands Colony and New Zealand. A leprosy Sub-station is located in Suva where new cases of leprosy are accommodated pending transportation to the Hospital at Makogai. Separate buildings are provided for the reception of cases discharged from Makogai pending return to their homes in Fiji or other South Pacific Islands.

82. At Makogai Leprosy Hospital *Thiacetazone* has been reserved for the treatment of a few patients. However, during the period under review, approximately 99 per cent of the patients have received treatment with a sulphone derivative, particularly diamino-diphenyl-sulphone by mouth. The previous regime of maximal dosage of 0.2 gm. daily, with a rest of one week in four, was replaced by a maximum dosage of 0.4 gm. twice weekly without a rest period. See Appendices VIII (a) and (b).

83. The Regulations in Fiji controlling the discharge of patients were relaxed in 1952 to the extent that only one year of surveillance of inactive cases at Makogai is required instead of the two years originally and demanded by statute. Discharge is controlled by strict criteria of inactivity. There is a carefully controlled follow-up of discharged patients, and the percentage of re-admissions has been low.

NEW ZEALAND AND FIJI LEPERS' TRUST BOARDS

84. The New Zealand Lepers' Trust Board makes funds available annually for the treatment and comfort of leprosy patients in the various South and West Pacific Island Territories. In respect of the patients at Makogai, the New Zealand Lepers' Trust Board makes an annual allocation of funds which are dispensed by the Fiji Lepers' Trust Board, a statutory body under the chairmanship of Sir Henry Scott, Q.C. The allocations to the Fiji Lepers' Trust Board amounted to £NZ7,200 in 1951, £NZ7,100 in 1952, £NZ4,000 in 1953, £NZ5,500 in 1954 and £NZ5,500 in 1955. Bursaries have been provided to enable medical officers from the various territories to visit Makogai for study purposes. The band instruments which were purchased from funds provided by the Lepers' Trust Board are proving very popular. Outside school hours the children indulge in sports including cricket and football; the girls receive training in needlework and handicrafts. Through the courtesy of the welfare officer of the Royal New Zealand Air Force squadron stationed in Fiji, a Boy Scout troop has been formed.

85. Through the generosity of the Lepers' Trust Board, a fully equipped Technical Institute has been constructed and equipped for the training of patients in woodwork, carpentry, and motor mechanics. The building is 100 feet long and 30 feet wide, and at the official opening in 1954, His Excellency, Sir Ronald Garvey, K.C.M.G., K.C.V.O., M.B.E., Governor of Fiji, named it the Ernest Wolfgram Technical Institute, in memory of the man (himself a leprosy patient), who did so much for the communal life of the patients until his death on the island in 1948. Also at Makogai there is now nearing completion the Austin Arts and Crafts Hall, provided by the New Zealand Lepers' Trust Board in commemoration of the unstinting devotion of Dr. C. J. Austin and Mrs. Austin to the welfare of the patients at Makogai during the 23 years which Dr. Austin was Medical Superintendent.

86. The X-ray Department at Makogai is being enlarged to provide a larger physiotherapy section, the electro-therapeutic equipment having been provided from the New Zealand contribution to the Fiji Lepers' Trust Board.

87. During the period under review, funds from the Lepers' Trust Board were provided for the construction of a new building at the Leper Sub-station, Suva, for patients in transit to Makogai. This building was opened by His Excellency, the Acting Governor of Fiji, Mr. A. F. R. Stoddart, C.M.G., in June, 1955. In addition to the members of the Fiji Lepers' Trust Board, guests present at the official opening ceremony included:—

Dr. H. B. Turbott, Deputy Director-General of Health, New Zealand, and
Miss F. J. Cameron, Director of the Division of Nursing, New Zealand.

88. The Governments of the South and West Pacific Islands and the patients in these territories are genuinely grateful to the New Zealand Lepers' Trust Board for their generosity in providing amenities to supplement the facilities already provided by these administrations for those afflicted with leprosy. The loyalty, enthusiasm and devoted service of the Sisters of Mary and the lay staff make possible the satisfactory operation of the Makogai Leprosy Hospital.

89. The Governments of Fiji and New Zealand contribute annually to a building and replacement fund. The former electrical power supply has already been replaced by larger generators, and the present water supply is now being improved. With the assistance of a grant from United Kingdom Colonial Development and Welfare Fund, new quarters, including kitchens, for 100 Indian patients have been completed. A new school for the children of labourers engaged in growing foodstuffs and in other activities for the hospital, and residential quarters for Assistant Medical Practitioners who receive training at Makogai as part of the Medical curriculum of the Central Medical School are now scheduled for construction during 1956.

90. The Indian Reform League in Fiji contributed a considerable sum of money towards a recreation room for the Indian patients at Makogai—this building was formally opened in 1955.

91. A report in detail of the Central Leprosy Hospital at Makogai and the Leprosy Sub-Station at Korovou, Suva is contained in Appendices VIII (a) and (b).

DISTRICT HOSPITALS AND DISPENSARIES

92. Three district hospitals are located at Lautoka, Labasa and Levuka. There are also four privately owned hospitals ranging in bed capacity from four to forty-one beds subsidized by Government. Fourteen rural hospitals are staffed by Assistant Medical Practitioners and locally trained nurses. These hospitals are supervised by visits from the medical officers located in the respective districts. Three dispensaries are located in the Suva area, and forty-four rural dispensaries are located at strategic centres in the various islands. These dispensaries are under the charge of Assistant Medical Practitioners and locally trained nurses.

93. In accordance with present policy a number of thatched dispensaries are being replaced each year by buildings of timber construction. Most dispensaries consist of one room 12 feet by 12 feet, but a few in remote areas have an additional room of the same dimensions where patients may be kept for observation, or pending transfer to hospitals. These buildings which consist of panels eight feet by three feet complete with windows and doors are prefabricated by the Medical Department and along with furnishings and cement are transported to the site by lorry portorage or medical vessel. There they are erected on a concrete dwarf wall with concrete floor prepared at the site.

94. In addition to replacements, new dispensaries were erected at Gau, Koro, Vunidawa and Ono-i-lau, a remote island in the group, and at Korovisilou, on Viti Levu. Due to heavy building commitments by the Public Works Department, the Medical Department, with minor adjustments, has been able to combine two double-unit dispensary buildings to provide quarters for Assistant Medical Practitioners. These buildings are prefabricated, transported to and erected at the site,

95. In this manner a progressive programme of replacing unsatisfactory buildings for the accommodation of Assistant Medical Practitioners and rural nurses, is being pursued in addition to the replacement of the thatched dispensary buildings.

96. One Health Sister is fully occupied on school health duties in the Suva area and eleven Health Sisters are located at strategic centres conducting ante-natal clinics, school inspections, child welfare work and supervising the locally trained nurses engaged in child welfare and maternity services in the rural areas.

97. For a population of approximately 330,000 there are available a total of 1,414 hospital beds, exclusive of the 750 beds at the Leprosy Hospital. A list of hospitals, their bed capacity and the location of dispensaries is at Appendix IV (a).

NUTRITION

98. Mrs. Susan Parkinson (*née* Holmes), the Senior Nutritionist, South Pacific Health Service, directed the activities carried out by the Dietitians employed at the Medical Department institutions and assumed the responsibility of providing lectures in this subject for medical and nursing students. A note on nutrition activities in Fiji is contained in Appendix XIII.

EYE CONDITIONS

99. An ophthalmologist was recruited to the establishment and arrived in the Colony in February, but resigned in November. On arrival such information as had been accumulated during previous years concerning eye conditions was placed at his disposal. This consisted of hospital records and the occasional reports submitted by visiting ophthalmologists from Australia. During the period February—November, the ophthalmologist devoted most of his attention to a survey of eye conditions in Fiji and produced a report with special reference to the problem of trachoma. Further details are contained in Appendix XVII.

DENTAL DIVISION

DENTAL CLINIC—COLONIAL WAR MEMORIAL HOSPITAL

100. *Staff*—In addition to the Nursing Sister and clerical staff at the Dental Clinic, the professional staff included:—

D. M. Ellerton, B.D.S.	Senior Dental Officer
I. L. Vosailagi, B.D.S.	Dental Officer
G. A. Patterson, B.D.S.	Dental Officer
Mrs. N. H. Palmer, B.A.	Dental Hygienist
I. Nadakuitavuki (from September)	Assistant Dental Practitioner
J. Ravunakana	Assistant Dental Practitioner
Madan Pal	Dental Mechanic

101. Dental treatment was given to the general public, in-patients and school children throughout the year by the 3rd and 4th year students of the Dental School under the supervision of the graduate dental officers.

102. Monday afternoons were set aside for the treatment of prisoners from H. M. Gaol and members of the Fiji Military Forces.

103. The clinic operated in two sections. Patients attending for the first time were examined and given necessary immediate treatment in the examination clinic consisting of three chairs. Patients for conservative treatment attended by appointment in the School Clinic consisting of five chairs. The remaining chair was set aside for the senior year as a demonstration chair.

104. *Treatment*—

Operative Dentistry—				Radiography—			
Amalgam 1 Surface	..	1,856		Apical	..	..	350
Amalgam 2 Surface	..	560		Bitewing	..	..	54
Amalgam 3 Surface	..	41		Occlusal	..	..	19
Synthetic	..	438		Dentures—			
Acrylic	..	10		Complete dentures	..	..	52
Fluoridation	..	26		Full upper only	..	..	32
Temporary Fillings	..	1,543		Full lower only	..	..	24
Other Treatments	..	728		Partial upper	..	..	83
Prophylaxis—				Partial lower	..	..	26
Scale and polish	..	426		Rebase	..	..	12
Marginal medication	..	155		Repair	..	..	41
Surgery—				Adjustments	..	..	121
Extractions—				Patients—			
Permanent teeth	..	3,806		European adults	..	..	460
Deciduous teeth	..	3,569		European children	..	..	335
Surgical extractions	..	89		Fijian adults	..	..	2,609
Alveolectomy	..	26		Fijian children	..	..	1,739
Fractured jaw fixation	..	18		Indian adults	..	..	2,241
Surgical dressings	..	140		Indian children	..	..	3,277
General anaesthetics	..	69		Other adults	..	..	1,202
Miscellaneous surgery	..	236		Other children	..	..	1,488

13,351

Revenue—

Cash	..	..	..	..	..	..	..	£2,148	0	6
Accounts	..	..	..	..	..	..	..	214	0	0
									<hr/>	
									£2,362	
									0	
									6	

105. There was an increase on figures for 1954 of 4,620 patients and £332 Revenue. This increase is largely due to the increased number of senior students working in the clinic and by the increased activity under the School Dental service programme.

106. *Development*—The conversion of part of the former Central Medical School buildings in the Hospital grounds to a new and larger Dental Clinic, is now scheduled to commence early in 1956. Meanwhile the dental equipment for the new building is stored in readiness.

107. *Touring Dental Service*—
Staff—A.D.P. J. Ravunakana.
A.D.P. I. Nadakuitavuki (from September).

The service suffered a great loss in the death of A.D.P. Neumi Waqanaceva in January.

Tours were made to the undermentioned centres. Treatment was concentrated on school children with emphasis on conservative treatment, leaving the extractions to be carried out by A.M.Ps. During holiday periods and between tours the travelling A.D.Ps. were engaged in the Colonial War Memorial Hospital Clinic.

	Extractions	Fillings	Scaling
Northern Lau Group	116	15	2
Makogai	47	..	..
Adi Cakobau School	11	88	..
Queen Victoria School (2 visits)	6	116	12
Ratu Kadavulevu School	29	290	8
Kadavu	237	..	3
Lautoka Hospital	11	102	4
Vatukoula Government School	78	196	..
Natabua Secondary School	23	118	7
Lomaiviti Province	86	..	..
Levuka	76	124	5
Mental Hospital	31	5	..
Central Nursing School	10	284	..
Fiji Military Forces (Malaya draft)	18	184	6
Labasa	55	187	10
Ono-i-Lau and Totoya	187	27	1
Nasinu Training College	2	65	2
	1,023	1,851	60

Also five full dentures and four partial dentures were constructed for patients during the Makogai visit.

108. *School Dental Service*—A new programme was introduced early in the year and carried out through the year. Thirty school children attended the clinic each afternoon from Tuesday to Friday. The children came in turn from every recognized school in the Suva area. The children in most need of treatment were selected by the School Health Sister during her routine school visits. The number of afternoons set aside for each school was decided according to the enrolment at that school.

109. *Tamavua Tuberculosis Hospital Dental Clinic*—Treatment to “ up ” patients was given by senior students attending by roster each day of the academic year.

Examinations	Extractions	Fillings	Scaling
581	180	285	45

110. *Dental Health Education Programme*—The new booklet “ Good Teeth ” prepared especially for Fiji by the Dental Division was printed in October and will be distributed to schools in 1956 by arrangement with the Education Department. The Director of Education has kindly agreed to introduce daily toothbrush drill in all schools as part of the routine hygiene classes. Copies of the booklet for the general public will be available at the Medical Department. Fijian and Indian language versions will be printed and distributed in January 1956. The booklct contains information on the teeth, dental diseases, dict and dental hygiene.

111. A new programme of visits by a Dental Health team to all schools in the Suva area commenced in November with a visit to Adi Cakobau School, Sawani. The visits will consist of a short talk on dental hygiene, sale of a toothbrush to each child on the school roll at cost, and practical instruction in how to brush the teeth and gums. The plan will later bc extended to all schools in Fiji. Once a child learns the habit of regular tooth-brushing at school he should continue the habit throughout life. This is the only feasible way in which to improve dental health in Fiji.

112. *Dental Treatment in Rural Dispensaries*—Extractions of badly diseased tecth arc carried out by Assistant Medical Practitioners at their medical stations. In an endeavour to standardize the dental equipment and complete a useful basic set in every Dispensary and Rural Hospital, a survey was made by circular and as a result the following items from the standardized dental set were issued:—

Forceps	147 pairs	Elevators	11
Mouth Mirrors	17	Dental Probes	31

DEPARTMENTAL VESSELS

113. The Medical Department maintains several vessels. The auxiliary ketch *Makogai* of 26 tons is based on the island of Makogai, and is used solely for the carriage of staff, visitors and stores between Suva and the leprosy hospital at Makogai, a distance of 65 miles, with occasional trips to Levuka and Natovi. The vessel was fully employed on these duties throughout the year.

114. In Suva the Health Department operates the motor launch *Vuniwai-ni-toba*. This launch combines quarantine with fumigation duties and maintains the weekly link between Suva and the quarantine islands of Makuluva and Nukulau.

115. At Wainibokasi there is a small motor launch, the *Adi Makareta*, which is used principally by the Health Sister, Nausori, for inspection of native villages in the Rewa delta and the Tailevu coast.

116. The 42-ton auxiliary ketch *Vuniwai* was busily employed for 11 months of 1954. Inspection tours were undertaken by the Director and Deputy Director of Medical Services, Medical Officers, the Senior Dental Officer, Assistant Dental Practitioner, Nursing Superintendent and Health Sisters. Many islands and medical stations were visited. When convenient the vessel was utilized to transfer Medical and Nursing staff within the group and to Suva when proceeding on leave. The vessel was also able to implement the Department's programme for the replacement of native type dispensaries, by carrying prefabricated wooden dispensaries, as well as carpenters to erect them, to several distant parts of the group. The vessel was also made available to the people in the province of Cakaudrove for the conveyance of mothers and children to the Baby Show held in conjunction with the Provincial Council, Cakaudrove. During May and June, the vessel spent much time with the WHO/UNICEF-assisted Yaws Control Programme, and provided transportation for the international team working on the pilot project in the province of Cakaudrove. The vessel served as Headquarters for the survey of those parts of the pilot area remote from roads but accessible by sea.

117. Below are the names of the islands and places visited by the a.k. *Vuniwai* during the year:—

Northern District—(Vanua Levu), Savu Savu, Urata, Vatulele, Vuadomo, Wailevu, Tacilevu, Ilisaceva, Nakasa, Labasa, Dreketi, Nabouwalu, Baulilai, Namukalau, Galoa, Udu Point, Visoqo, Korotubu, Naduri, Macuata-i-wai, Balaga, Nawake Point, Vunivatu, Solevu, Sonisoni, Nasasaivua, Dama, Buca Bay.

Cakaudrove District—Taveuni, Tuvamila, Druadrua, Vatuwiri, Naiviivi, Matakunea, Nasinu, Nakorolevu, Nabua, Vunidogoloa, Nakoronatoga, Vuninavi, Korotaseri, Nakarabo, Vanuavou, Lakeba, Qacavulo, Tawake, Yacata, Bouma, Qamea, Laucala, Qelelevu, Yanuca, Rabe, Napuka, Natewa, Kioa, Vatuvonu, Valelase.

Eastern District—Levuka, Koro, Nasau, Naqaidamu, Gau, Nadi, Makogai, Qarani, Nairai, Batiki, Moturiki, Caqalai, Ucunivanua.

Lau District—Totoya, Ono-i-Lau, Moala, Lomaloma.

Southern District—All Kadavu ports, Beqa, Naboutini.

Western District—Vatea Point, Namarai, Yasawas, Momi, Malolo, Solevu, Vatulele.

VI—LABORATORY DIVISION

118. *Staff*—There were some alterations in the staff during the year. The Pathologist was present during the whole of the period, and the appointment of Laboratory Superintendent, which had been vacant since early in 1954, was filled by the appointment of Mr. Samuel in June. Ram Sami Mutialu returned to the Laboratory after overseas study and was appointed Senior Laboratory Assistant in February.

119. The gain to the staff of these appointments was offset by the transfer of A.M.P. Ovini to the Fiji Military Forces, and the continued absence of A.M.P. Samuela Baravilala on sick leave. Krishna Naidu, who has been in the Laboratory for many years was promoted Senior Assistant during the year. Six students from Fiji and one from other territories continued their course and have now completed two years, two new students from other territories, one from the British Solomon Islands Protectorate and one from Eastern Samoa, started the course during the year. One student from Fiji unfortunately had to be dismissed for bad behaviour and another resigned at the end of the year. Both of these students had completed two years of the course.

120. *Routine Work*—The year has been chiefly marked by an increase in the work of the division. As noted last year with an increase in the number of specialist officers and a rise in the standard of teaching in the Hospital and Medical School, demands on the Laboratory services are likely to increase. The present amount of work is placing a rather heavy burden on the staff carrying out routine work, that is the Assistants and Senior Students. If work at the present rate and standard is to continue, a supply of locally trained Assistants who will stay and work in the Laboratory is essential. This can be obtained by encouraging good work by granting accelerated promotion to good locally trained Assistants who remain in the service.

121. Employment of temporary trained staff from overseas has eased the situation for the time being, but is not a satisfactory long term policy.

122. To show the upward trend of the work asked of the division and the main senders of specimens, figures for the past years of total specimens examined are shown below:—

EXAMINATIONS CARRIED OUT OVER THE PAST 16 YEARS

1939	..	..	7,060	1940	..	..	7,930
1941	..	..	19,971	1942	..	..	17,123
1943	..	..	25,784	1944	..	..	29,500
1945	..	..	33,041	1946	..	..	27,149
1947	..	..	26,291	1948	..	..	27,557
1949	..	..	27,570	1950	..	..	29,742
1952	..	..	26,348	1953	..	..	24,527
1954	..	..	33,439	1955	..	..	42,487

123. The bulk of the specimens come from the Colonial War Memorial Hospital, out-patients and in-patients. Private practitioners sent 1,641 specimens. The number of specimens, not examinations, under the main headings in the Laboratory, received from different sources are shown in Table III, Appendix IX.

124. Lautoka Hospital has its own branch Laboratory with, at the end of the year, one locally qualified Assistant and one cleaner; the number of examinations carried out in this branch Laboratory during the year was 14,020; when more trained staff is available the staff of this branch must be increased.

125. *Teaching*—The Pathologist continued teaching of students in the Central Medical School, the subjects dealt with being General Pathology, Clinical Pathology, including Bacteriology and Forensic Medicine. In addition, students are attached to the Laboratory in turns during their clinical years, and during this time get practice in carrying out the simpler Laboratory tests and also in performing post mortem examinations.

126. The mounting of pathological specimens, which now number over 100, to form the nucleus of a teaching museum was continued during the year, the specimens were catalogued, but no room to use as a museum had been made available up to the end of the year.

127. *Post Mortem Examinations*—The total number carried out was 159. Fifty-seven of these were requested by the Police, 31 of which were “unnatural deaths”, from the following causes:—

Drowning accidental	..	..	..	..	..	3
Hanging suicidal	..	..	..	..	..	8
Traffic accidents	..	..	..	..	..	7
Gunshot wounds	..	..	..	..	..	2
Stabbing	..	..	..	..	..	1
Blunt instruments	..	..	..	..	..	1
Scalds	..	..	..	..	..	1
Chemical burns	..	..	..	..	..	1
Poisons	..	..	..	..	..	3
Anaesthetic deaths	..	..	..	..	..	2
Boxing	..	..	..	..	..	2

128. *Neonatal Deaths*—As far as possible post mortem examinations are carried out on all neonatal deaths in the Maternity Annex. The chief causes found were:—

Congenital defects	..	..	..	..	..	2
Tentorial tears, intracranial haemorrhage	..	..	..	..	..	3
Atelectasis	..	..	..	..	..	4
Prematurity	..	..	..	..	..	4
Asphyxia, cause not determined	..	..	..	..	..	1

129. *Infants and Young Children*—The chief causes of death found in infants and young children were:—

Malnutrition	..	..	..	..	..	3
Ascariasis (Toxaemia)	..	..	..	..	..	1
Broncho-pneumonia and bronchiolitis	..	..	..	..	..	12
Dysentery (bacillary)	..	..	..	..	..	2
Gastro-enteritis	..	..	..	..	..	3
Typhoid	..	..	..	..	..	1
Tuberculosis	..	..	..	..	..	6
Congenital morbus cordis	..	..	..	..	..	4
Nephritis	..	..	..	..	..	1
Purulent meningitis	..	..	..	..	..	1

130. *Adults*—The chief causes of death among adults were:—

Cardiovascular conditions—hypertensive and degenerative	..	..	..	..	..	18
Rheumatic	..	..	..	..	..	12
Rupture aorta (cystic medial degeneration)	..	..	..	..	..	1
Giant-celled isolated myocarditis	..	..	..	..	..	1
Septic infections	..	..	..	..	..	12
Infective hepatitis	..	..	..	..	..	3
Nephritis	..	..	..	..	..	5
Tuberculosis	..	..	..	..	..	5
Malignant new growths	..	..	..	..	..	9
Lupus erythematosus	..	..	..	..	..	1
Tetanus	..	..	..	..	..	3
Post partum deaths	..	..	..	..	..	2
Cirrhosis of liver	..	..	..	..	..	1
Delirium tremens	..	..	..	..	..	1
Leukaemia	..	..	..	..	..	1

131. *Diagnostic work*—The main work of the Laboratory has been diagnostic during the year and has been very varied. Details are shown in Tables I and II, Appendix IX.

132. *Kahn Reactions*—Results were as follows:—

	Total sera examined	Strong positive	Positive	Weak positive and doubtful	C.S.F.	Positive
Fijians	324	21	21	43	24	2
Indians	1,652	40	19	51	38	2
Europeans	313	—	—	1	8	3
Others	78	6	5	6	10	1
	2,367	67	45	101	80	8

Thirteen per cent of sera from Fijians and three per cent of Indians gave positive reactions above weak positive or doubtful.

133. These Kahn Reactions are from routine sources and do not include examinations carried out by the World Health Organization Yaws Campaign, which are not included in this report.

134. *Stools*—The total number of stool specimens examined and positive findings are shown below. Many of these are carried out as a part of routine medical examinations, e.g., candidates for Government service, Nurses, domestic staff etc., as well as patients and indicate a high degree of infestation, especially with ankylostomes.

135. Total microscopic examinations for ova and cysts 6,780.

<i>Helminths</i> —					
Ova of ankylostomes .	..	..	..	1,091	or 18 per cent
Ova of Ascaris .	..	..	..	277	or 5 per cent
Enterobius vermicularis	..	..	..	20	or 0·3 per cent
Other helminths	..	..	..	87	or 2 per cent
<i>Protozoa</i> —					
Ent. Histolytica living	..	..	..	27	
Cysts .. .. .	..	..	..	3	
Ent. Coli cysts .	..	..	..	99	
Giardia lamblia	..	..	..	17	
Iod. Butschlii .	..	..	..	11	

Additional details are at Appendix IX.

VII—TRAINING

136. *Suva Medical Centre*—The new Central Medical School building which was opened by Her Majesty the Queen in December, 1953, and those buildings comprising the new Central Nursing School and Hostel were occupied in 1954. In addition there remain to be constructed the new maternity and out-patients departments. Funds to cover the cost of the expansion of these training and treatment institutions were a free grant of £F240,000 from the United Kingdom Government as part of its Colonial Development and Welfare Scheme. There are approximately 125 medical students in residence at the Central Medical School and 190 nurses residing at the Central Nursing School.

137. In addition to treatment facilities the Colonial War Memorial (general) Hospital (275 beds), the Tamavua Tuberculosis Hospital (313 beds), the Mental Hospital (100 beds) and the Central Leprosy Hospital, Makogai with nearly 650 patients, provide ample clinical material for the students. Full use is also made of the Colony's health divisions, namely Tuberculosis, Leprosy, Yaws, Mosquito and Filariasis Control, Sanitary Engineering, School and Welfare clinics, Nutrition and Quarantine services for training in preventive medicine, environmental hygiene and epidemiology.

138. The facilities available at the Colonial War Memorial Hospital have been recognized by some of the Universities abroad as meeting requirements for the compulsory year of hospital training prior to medical registration. This may lead to applications being received for appointment as resident housemen from students in the United Kingdom and New Zealand, and in particular from medical students from Fiji who are attending medical schools abroad.

139. *Central Medical (and Dental) School*—The Advisory Board consists of the Inspector-General, South Pacific Health Service (who is also the Director of Medical Services, Fiji), Chairman; the Director of Education, Fiji; the Secretary for Fijian Affairs; the Deputy Director of Medical Services, Fiji; the Medical Officer-in-Charge of the Colonial War Memorial Hospital and the Principal of the School. The Chief Secretary, Western Pacific High Commission, is also a member of the Board, but due to transfer in December, 1952, of the headquarters of the Western Pacific High Commission to Honiara in the British Solomon Islands Protectorate, this officer's functions as a member of the Board have been delegated by that Administration to the Inspector-General. Each year one meeting of the Advisory Board is held jointly with the South Pacific Board of Health, which meets annually in Suva.

140. The Academic Board, consisting of the Principal (Chairman), the Director of Education, the Medical Officer-in-Charge of the Colonial War Memorial Hospital, the Physician Specialist, the Surgeon Specialist, the Medical Officer of Health and the Senior Dental Officer, meets quarterly to keep the curriculum constantly under review and to assess the progress of the students. During 1955 the Academic Board was enlarged to enable one of the lecturers in the pre-clinical subjects to be a member. The Director of Medical Services, and the Deputy Director of Medical Services are free to attend meetings of the Academic Board. This privilege is seldom exercised unless the Agenda includes items which may impinge on school policy which would affect the South Pacific Health Service.

141. Assistant Medical Practitioner is the designation given to a graduate in medicine from the Central Medical School. Dental graduates are Assistant Dental Practitioners. In the South Pacific Health Service territories these graduates do not engage in private practice but are full-time members of the medical staffs of the participating territories.

142. *Medical Auxiliary Subjects*—Apart from medical and dental training, complete courses leading to a local certificate in the following technical subjects are available at the Central Medical School and Fiji Medical and Health Departments. Students in the Filariasis and Mosquito Control course are also receiving instruction in the use of modern insecticides for the control of mosquitoes under the direction of Mr. C. B. Symes, O.B.E., Filariasis Research Officer who has been seconded to Fiji from Her Majesty's Overseas Research Service.

Pharmacy	..	..	..	..	Three years
Laboratory Assistant	..	..	..	..	Three years
Clinical Laboratory Assistant	..	..	..	..	One year
Health (Sanitary) Inspector	..	..	..	..	Three years*
Filariasis and Mosquito Inspector	..	..	..	..	Six months

143. *Post-Graduate Training*—Special courses are available in tuberculosis (diagnosis, clinical, laboratory, X-Ray, treatment, Mantoux testing and B.C.G. vaccination); leprosy (diagnosis, treatment, registration and follow-up); eye diseases; ante-natal and infant welfare work; obstetrics; school health; nutrition; port quarantine duties; filariasis and mosquito control. A programme has been instituted whereby selected Assistant Medical Practitioners in Fiji are returned to the School and hospitals for refresher courses in general and special subjects.

144. During 1955 a Tongan fully qualified medical practitioner who recently graduated from Otago University, attended the Suva Medical Centre for post-graduate training in diagnosis and treatment of tuberculosis, the conduct of tuberculosis surveys and public health control measures including B.C.G. vaccination. Two Tongan Assistant Medical Practitioners, former graduates of the Central Medical School, pursued six months post-graduate training in surgery under the Surgeon Specialist, at the Colonial War Memorial Hospital.

145. The Laboratory Superintendent from the Cook Islands pursued six months further experience in serology and laboratory techniques, and a Cook Islands Assistant Medical Practitioner, a former graduate from the Central Medical School, was attached to the yaws field teams.

146. A Samoan Assistant Medical Practitioner was the recipient of a World Health Organization Fellowship to enable him to pursue nine months training in psychiatry, neurology, and mental hygiene under the specialist in charge of this work in Fiji.

147. Two Assistant Medical Practitioners from the Gilbert and Ellice Islands Colony pursued six months post-graduate training in filariasis and mosquito control. A Medical Assistant from the British Solomon Islands Protectorate is undergoing training in serology and laboratory techniques associated with the yaws control programme.

148. *Overseas Post-Graduate Training*—Contingent upon the requirements in the territories, outstanding Assistant Medical Practitioners are selected for further training overseas if this cannot be provided at the Suva Medical Centre. These facilities have been made possible through the kind co-operation of Sir Charles Hercus, D.S.O., Dean of the Medical Faculty, University of Otago and Professor E. Ford, Dean of the Medical Faculty, Sydney University. The Metropolitan Health Departments of Auckland, New Zealand and Sydney, Australia, occasionally allow Assistant Medical Practitioners during overseas leave to observe the functioning of their respective departments.

149. The Fijian Assistant Medical Practitioner employed at the Gold Mines, Fiji, proceeded to Sydney to pursue special studies in industrial hygiene. For this purpose he was attached to Sydney University and the City Health Department. The Fijian Filariasis Officer who is in charge of the training of students in the recognition and control of mosquitoes, has been accepted for further training in the Department of Parasitology, School of Public Health and Tropical Medicine, Sydney University. These arrangements have been made through the courtesy of the Dean of the Medical Faculty.

150. Further details are contained in Appendix XIV (a).

CENTRAL NURSING SCHOOL AND HOSTEL

151. Although the Central Nursing School came into operation in 1954, construction was not completed until 1955. The Central Nursing School constitutes part of the Suva Medical Centre which has been provided by a grant from the United Kingdom Colonial Development and Welfare Fund. This School provides domiciliary accommodation for the Principal of the Central Nursing School, three Sister Tutors, a Housekeeper and approximately 200 students in training in addition to dining and recreation rooms, library and classrooms.

* The Sanitary Inspector's course includes training in Malaria and Filariasis control and the application of insecticides. Students from territories other than Fiji may complete the third year in the Health Department of their home territory.

152. *New Zealand Registration Standard*—The first class for the course of training to New Zealand registration standard was commenced in January. Seven candidates were accepted by the Selection Committee. These seven students sat their preliminary examinations in November. The examination papers were marked in New Zealand. All students were successful in their examination.

153. Of thirteen candidates interviewed by the Selection Committee to commence training in January, 1956, ten were able to meet the education standard required.

154. *Registration of Nurses and Midwives*—The third meeting of the Board was held on the 29th August. It was agreed that meetings of the Board should be held once every year, and at such other times and places as the Chairman of the Board may direct.

155. *Nursing Staff*—Due to the shortage of nursing sisters in New Zealand, it was also necessary to recruit state registered nursing sisters from Australia to provide the number required for the staffing of the Hospitals and in-ward training of nurses. The shortage of tutor sisters has been relieved by three local appointees. Although the staff of locally trained nurses has been satisfactorily maintained, there is still a shortage of Health Sisters necessary to provide adequate supervision of nursing services in the rural areas.

156. Additional information regarding the training of nurses and work at school and welfare clinics is contained in Appendix XV.

VIII—METEOROLOGY

157. Summaries of meteorological observations for 1955 are given at Appendix XXI. For these I am indebted to the Meteorological Officer at Laucala Bay, Suva.

J. M. CRUIKSHANK,
Director of Medical Services.

APPENDIX I

DEPARTMENTAL ESTABLISHMENT

	1955
1. MEDICAL AND ADMINISTRATIVE SECTION—	
Director of Medical Services	1
Deputy Director of Medical Services	1
Assistant Director (Health and Medical)	1
Secretary	1
Senior Medical Officers	3
Physician Specialist	1
Surgeon Specialist	1
Medical Officers	18
Ophthalmologist	1
Radiologist	1
Dental Surgeons	2
Pathologist	1
Assistant Medical Practitioners	115
Assistant Dental Practitioners	4
2. NURSING SECTION—	
Nursing Superintendent	1
Matrons and Assistant Matrons	6
Sisters in Charge	3
Nursing Sisters	49
Health Sisters	12
Principal (1) Tutors (6) Nursing School	7
Nurses	381
3. TECHNICAL SECTION—	
Laboratory Superintendent	1
Laboratory Assistants	11
Chief Health Inspector	1
Health Inspectors (10) Assistant Inspectors (23)	33
Government Pharmacists (3) Assistants (4)	7
Radiographers (3) X-ray Assistants (2)	5
Dietitians	3
Dental Mechanic	1
4. CLERICAL SECTION—	
Clerical Staff	46
5. SUPERVISORY SECTION—	
Mental Hospital, Attendants (2) Orderlies (20)	22
Caretaker, Quarantine Island	1
Carpenters (3) Engineers (3) Storekeepers (2)	8
Occupational Instructor	1
Housekeepers (3) Laundry (2) Seamstress (1)	6
Subordinate staff	120
6. CENTRAL MEDICAL SCHOOL—	
Principal (1) Assistant Principal (1)	2
Anatomy and Surgery Lecturer	1
Dental Officer (1) Dental Mechanic (1)	2
Science Lecturer	1
Dental Hygienist	1
Assistant Medical Practitioner	1
Housekeeper (1) Clerical staff (1) Servants (6)	8
7. FIJI LEPROSY HOSPITAL—	
Medical Officer	1
Clerical Staff	2
Overseer (1) School teachers (2) Constables (4)	7
Bakers (4) Labourers and Servants (30)	34
Nursing Sisters	23
Assistant Nursing Sisters	11
8. MALARIA PREVENTION AND FILARIASIS CONTROL—	
Surveyor in Charge	1
Senior Inspectors (4) Inspectors (10) Assistants (57)	71
Clerical Staff (2) Pupils (6)	8
Health Inspector	1
9. CENTRAL MEDICAL RESEARCH LIBRARY—	
Librarian	1
Clerical Staff	1

APPENDIX II (a)

NOTIFICATION OF INFECTIOUS DISEASES BY DISTRICTS FOR THE YEAR 1955

Name of Disease	SUVA			SOUTHERN				WESTERN								EASTERN		NORTHERN CAKAUDROVE					Rotu- MA	TOTAL					
	Suva Urban	Suva Rural	Aircraft	Ships	Talevu	Rewa	Naitasiri	Sera	Kadavu	Nadroga	Nadi	Lautoka	Ba	Tavua	Nadavivatu	Ra	Aircraft	Ships	Nadi Aerodrome	Lomaiviti	Lau	Macuata			Bua	Taveuni	Savusavu	Rabi	Rotuma
1. Ankylostomiasis	65	17	..	..	21	12	9	4	8	1	..	56	2	8	..	7	..	..	..	18	..	42	1	3	..	..	..	274
2. Anthrax .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Beriberi .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
4. Cerebro-Spinal Meningitis .. .. .	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	4	4
5. Chicken-Pox (Varicella)	31	24	..	..	17	5	12	1	8	10	11	32	20	12	1	18	..	17	30	..	..	10	20	7	..	..	295	
6. Dengue Fever	1	..	..	..	8	12	..	..	..	2	..	1	3	4	..	2	..	..	..	..	3	..	..	..	..	..	36	36
7. Diphtheria .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
8. Dysentery— (a) Amoebic	11	6	..	..	1	2	..	..	..	..	..	4	3	3	..	..	..	..	2	2	2	..	..	..	..	3	37	
(b) Bacillary	7	9	..	..	14	1	2	2	..	1	8	6	2	..	..	..	..	..	2	2	3	4	4	2	3	..	70	
(c) Unclassified	3	..	..	..	2	..	1	1	..	11	45	8	22	20	1	4	..	3	7	7	4	5	..	1	..	5	143	
9. Encephalitis Lethargica .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Erysipelas	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
11. Infantile Diarrhoea	60	53	..	..	122	28	69	11	28	22	79	83	100	295	2	118	..	4	143	109	109	61	20	67	1	..	67	1,542
12. Leprosy	3	2	..	..	1	..	..	..	2	..	..	1	..	1	..	1	..	..	1	1	1	4	..	1	1	..	19	19
13. Leptospirosis
14. Infective Hepatitis	7	6	..	..	8	5	1	6	..	..	4	2	2	..	..	..	..	..	3	..	..	3	1	1	..	3	53	53
15. Influenza	344	219	..	..	426	152	258	74	118	182	543	79	219	718	56	251	..	101	457	239	..	296	60	142	145	77	281	5,437
16. Malaria
17. Measles (German) .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
18. Measles (Morbilli)	1	..	..	..	1	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	9
19. Mumps	5	..	..	..	..	..	..	..	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	9	9
20. Poliomyelitis	7	1	..	..	1	1	..	..	..	..	..	1	..	..	..	1	..	..	2	..	..	..	..	..	..	..	14	14
21. Puerperal Fever	1	..	..	..	..	1	1	2	..	19	2	5	4	3	..	4	..	..	..	..	..	..	1	..	..	1	44	44
22. Scarlet Fever
23. Tetanus .. .. .	..	4	..	..	1	2	2	1	1	3	5	8	..	..	..	..	..	..	2	2	3	1	2	..	2	..	37	37
24. Trachoma	23	15	..	..	8	8	..	2	4	3	4	..	10	..	..	16	..	..	51	1	1	..	1	1	..	..	147	147
25. Tuberculosis (Pulmonary)	13	15	..	..	28	9	3	5	9	2	..	58	1	..	..	8	..	..	10	4	4	21	1	11	1	3	8	210
26. Tuberculosis (Other forms)	14	13	..	..	10	3	5	2	..	3	1	15	1	..	..	1	..	..	1	2	2	8	1	2	..	..	7	97
27. Typhoid Fever— (a) Enteric Fever	3	3	..	..	4	1	..	1	2	..	1	4	1	..	..	1	..	..	..	..	2	..	..	1	..	..	24	24
(b) Para-typhoid Fever .. .. .	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
28. Undulant Fever
29. Venereal Diseases— (a) Climatic Bubo
(b) Gonorrhoea	108	35	..	..	17	11	4	1	3	3	9	55	16	1	..	4	..	..	23	5	..	2	..	10	..	..	322	322
(c) Gon. Ophthalmia including Neonatorum .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	4	4
(d) Soft Chancre .. .. .	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
(e) Syphilis	4	4	..	..	..	..	..	..	..	..	1	36	3	..	..	..	..	..	..	..	..	..	..	..	..	..	48	48
(f) Venereal Granuloma
(g) Others
30. Whooping Cough (Pertussis)	227	67	90	21	7	20	25	20	11	16	5	3	..	4	1	54	5	16	16	19	..	627	627
31. Yaws	618	430	..	..	539	125	242	200	24	361	483	551	126	113	25	252	..	..	251	231	108	164	386	32	8	2	5,274	5,274
Total	1,559	925	..	..	1,321	399	618	333	232	643	1,210	1,027	540	1,181	85	697	..	..	1,007	609	619	264	670	225	112	337	14,787	14,787

APPENDIX II (b)

NOTIFICATION OF INFECTIOUS DISEASES BY RACE FOR THE YEAR 1955

Disease	Europeans	Part-Europ.	Fijians	Indians	Others	Totals
1. Ankylostomiasis	9	4	84	175	2	274
2. Anthrax .. ..	....	....	....	....	....	....
3. Beriberi .. ..	....	....	....	....	1	1
4. Cerebro-Spinal Meningitis ..	....	....	3	1	....	4
5. Chicken Pox (Varicella)	12	9	199	52	23	295
6. Dengue Fever	2	1	25	7	1	36
7. Diphtheria .. ..	....	....	....	1	....	1
8. Dysentery—						
(a) Amoebic	9	2	5	18	3	37
(b) Bacillary	1	....	22	39	8	70
(c) Unclassified	3	1	34	100	5	143
9. Encephalitis Lethargica .. ..	....	....	....	....	....	....
10. Erysipelas .. ..	....	....	....	4	....	4
11. Infantile Diarrhoea	15	65	881	474	107	1,542
12. Infective Hepatitis	6	1	25	19	2	53
13. Influenza	54	197	2,932	1,727	527	5,437
14. Leprosy .. ..	....	....	7	9	3	19
15. Leptospirosis .. ..	....	....	....	....	....	....
16. Malaria .. ..	....	....	....	....	....	....
17. Measles (German) .. ..	....	1	....	....	....	1
18. Measles (Morbilli)	3	....	4	2	....	9
19. Mumps	1	1	3	4	....	9
20. Poliomyelitis	3	4	4	3	....	14
21. Puerperal Fever .. ..	....	....	11	32	1	44
22. Scarlet Fever .. ..	....	....	....	....	....	....
23. Tetanus .. ..	....	1	18	18	....	37
24. Trachoma .. ..	....	9	115	18	....	147
25. Tuberculosis Pulmonary	1	2	150	37	20	210
26. Tuberculosis Other Forms	1	2	64	11	19	97
27. Typhoid Fever—						
(a) Enteric	2	....	15	7	....	24
(b) Paratyphoid Fever .. ..	....	....	2	....	....	2
28. Undulant Fever .. ..	....	....	....	....	....	....
29. Venereal Diseases—						
(a) Climatic Bubo .. ..	....	....	....	....	....	....
(b) Gonorrhoea	22	27	142	109	22	322
(c) Gon. Ophthalmia including Neonatorum .. ..	....	....	2	1	1	4
(d) Soft Chancre .. ..	....	....	2	....	....	2
(e) Syphilis	3	....	....	44	1	48
(f) Venereal Granuloma .. ..	....	....	....	....	....	....
(g) Others .. ..	....	....	....	....	....	....
30. Whooping Cough (Pertussis) .. ..	....	6	351	236	34	627
31. Yaws .. ..	....	35	5,148	34	57	5,274
Total ..	147	368	10,248	3,182	842	14,787

APPENDIX II (c)

NOTIFICATION OF INFECTIOUS DISEASES BY MONTHS FOR THE YEAR 1955

Disease	January	February	March	April	May	June	July	August	September	October	November	December	Total
1. Ankylostomiasis ..	12	16	15	13	15	17	15	28	23	33	46	41	274
2. Anthrax .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Beriberi	1	..	..	..	..	..	..	..	..	..	..	..	1
4. Cerebro-Spinal Meningitis .. ..	..	..	..	..	..	1	..	..	2	..	..	1	4
5. Chicken Pox (Varicella)	10	16	15	19	27	23	21	28	53	40	29	14	295
6. Dengue Fever	3	2	4	2	12	4	..	5	1	3	..	..	36
7. Diphtheria	1	..	..	..	..	..	..	..	..	..	..	..	1
8. Dysentery—													
(a) Amoebic	1	5	2	2	3	5	3	4	2	2	2	6	37
(b) Bacillary	4	7	6	11	2	15	9	2	4	5	2	3	70
(c) Unclassified ..	6	7	7	17	16	18	19	17	9	1	14	12	143
9. Encephalitis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Erysipelas	2	..	..	1	..	..	..	..	1	..	..	..	4
11. Infantile Diarrhoea ..	175	124	158	149	98	187	101	87	101	100	115	147	1,542
12. Infective Hepatitis ..	1	3	7	2	3	7	3	8	3	6	..	10	53
13. Influenza	428	473	722	650	422	421	420	497	403	297	353	351	5,437
14. Leprosy	2	3	1	..	2	1	2	1	1	3	2	1	19
15. Leptospirosis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Malaria .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Measles (Morbilli) ..	..	..	1	1	1	1	1	1	..	1	2	..	9
18. Measles (German) ..	..	..	..	..	..	..	..	..	1	..	..	..	1
19. Mumps	1	..	..	..	..	1	..	..	..	..	5	2	9
20. Poliomyelitis .. ..	..	..	..	..	..	..	..	..	..	9	3	2	14
21. Puerperal Fever	3	7	2	4	4	4	3	6	6	3	2	..	44
22. Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
23. Tetanus	2	4	2	3	4	3	2	1	..	5	5	6	37
24. Trachoma	9	8	61	5	12	16	2	5	8	8	9	4	147
25. Tuberculosis Pulmonary	9	27	14	17	15	23	20	21	14	15	17	18	210
26. Tuberculosis Other Forms	3	5	5	14	4	8	12	12	12	8	7	7	97
27. Typhoid—													
(a) Enteric Fever ..	..	..	3	2	4	4	..	3	3	3	..	2	24
(b) Paratyphoid Fever ..	..	..	..	1	..	..	..	..	..	..	..	1	2
28. Undulant Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
29. Venereal Diseases—													
(a) Climatic Bubo ..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Gonorrhoea ..	17	20	25	42	20	28	25	29	23	25	20	28	322
(c) Gon. Ophthalmia incl. Neonatorum ..	..	..	..	..	..	1	..	..	..	1	1	1	4
(d) Soft Chancre .. ..	..	..	..	2	..	..	..	..	..	..	..	..	2
(e) Syphilis	3	1	13	11	5	6	4	2	1	..	..	2	48
(f) Venereal granuloma ..	..	..	..	..	..	..	..	..	..	..	..	..	..
(g) Others .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
30. Whooping Cough (Pertussis)	165	65	45	19	28	50	20	28	48	36	75	48	627
31. Yaws	398	537	671	670	578	681	330	351	371	325	210	152	5,274
Total ..	1,256	1,330	1,779	1,657	1,295	1,525	1,012	1,136	1,090	929	919	859	14,787

APPENDIX II (d)

DISTRIBUTION OF EPIDEMIOLOGICAL INFORMATION

TELEGRAPHIC MONTHLY DISTRIBUTION

South Pacific Health Service Epidemiological Information

Chief Medical Officer, Nukua'lofa, Tonga.
 Director of Health, Apia, Western Samoa.
 Senior Medical Officer, Honiara, British Solomon Islands Protectorate.
 Senior Medical Officer, Tarawa, Gilbert and Ellice Islands Colony.
 British Medical Officer, Port Vila, New Hebrides.
 Director of Health, Tutuila, American Samoa.
 Chief Medical Officer, Rarotonga, Cook Islands.
 Director of Medical Services, Hollandia, Netherlands New Guinea.
 Director of Medical Services, Papeete, Tahiti.
 Chief Medical Officer, Nauru.
 Director of Health, Port Moresby, Papua-New Guinea.
 Director of Medical Services, Noumea, New Caledonia.
 Chief Medical Officer, Niue Island.
 Director of Health, Ponape, United States Pacific Trust Territory.
 Director of Health, Guam Island.
 Secretary-General, South Pacific Commission, Noumea, New Caledonia.
 Secretary of State, Colonial Office, London.

WEEKLY AIRMAIL DISTRIBUTION

Epidemiological Information of Fiji Only

Secretary of State, Colonial Office, London.
 Ministry of Health, London, England.
 World Health Organization, Geneva, Switzerland.
 W.H.O. Epidemiological Bureau, Singapore.
 W.H.O. Regional Office, Manila, Philippines.
 Chief Quarantine Officer, Vancouver, British Columbia.
 U.S. Quarantine Station, San Francisco, California.
 U.S. Quarantine Medical Officer, Honolulu, Hawaii.
 American Consul, Noumea, New Caledonia.
 Colonial Secretary, Suva, Fiji.

MONTHLY AND SIX MONTHLY AIRMAIL DISTRIBUTION

South Pacific Health Service Epidemiological Information

Secretary of State, Colonial Office, London, England.
 Ministry of Health, London, England.
 World Health Organization, Geneva, Switzerland.
 W.H.O. Epidemiological Bureau, Singapore.
 W.H.O. Regional Office, Manila, Philippines.
 Department of Health, Wellington, New Zealand.
 Department of Health, Canberra, Australia.
 Secretary-General, South Pacific Commission, Noumea, New Caledonia.
 Department of Health, Tahiti.
 British Resident Commissioner, New Hebrides.
 American Consul, Noumea, New Caledonia.
 American Ambassador, Wellington, New Zealand.
 Consul-General, Tahiti.
 The United States Quarantine Medical Officer, Hawaii.
 United States Board of Commerce, Honolulu, Hawaii.
 United States Public Health Service, Honolulu, Hawaii.
 Pacific Science Board, Honolulu, Hawaii.
 Department of Health, Honolulu, Hawaii.
 New Zealand National Airways, Suva, Fiji.
 Pan American World Airways, San Francisco, California.

APPENDIX III

VITAL STATISTICS

(1) ESTIMATED POPULATION AT 31st DECEMBER, 1955

Race	Male	Female	Total	(1954)	Difference	Per cent increase	Population per sq. mile
Fijians	74,668	72,174	146,842	143,100	+ 3,700	+ 2.6	20.86
Indians	87,419	78,843	166,262	160,303	+ 5,959	+ 3.7	23.62
Europeans	5,347	4,044	19,391	8,460	+ 1,931	+ 23.0	1.48
Part-Europeans ..	4,108	3,848	7,956	7,748	+ 208	+ 2.7	1.13
Polynesians	3,302	2,387	5,689	4,988	+ 701	+ 14	.81
Rotumans	2,159	2,088	4,247	4,134	+ 113	+ 2.7	.60
Chinese	2,746	1,437	4,183	3,985	+ 198	+ 5.0	.59
Others	313	281	594	671	— 77	— 11.5	.08
Totals ..	180,062	165,102	345,164	328,401	+ 17,763	+ 5.4	49.17

(2) BIRTHS RECORDED DURING YEARS 1952-1955

Race	1952	1953	1954	1955	Population 1954	Crude Birth- rate per mille of 1954 population
Fijians	4,983	4,903	5,294	5,017	143,100	35.0
Indians	6,650	7,133	6,921	7,127	160,303	44.0
Europeans	113	139	145	148	8,460	15.7
Part-Europeans	257	243	286	241	7,748	31.0
Rotumans	171	194	191	166	4,134	40.0
Polynesians	185	169	184	194	4,988	39.0
Chinese	139	148	103	153	3,985	38.5
Others	14	7	80	21	671	31.0
Totals ..	12,512	12,936	13,204	13,067	333,389	37.86

(3) DEATHS RECORDED DURING YEARS 1952-1955

Race	1952	1953	1954	1955	Crude death-rate per Mille, 1955
Fijians	2,004	1,478	1,531	1,411	9.61
Indians	1,325	1,257	1,378	1,193	7.18
Europeans	35	20	34	30	2.89
Part-Europeans	42	45	34	34	4.39
Rotumans	119	49	47	53	12.48
Polynesians	58	48	60	51	8.96
Chinese	18	28	16	15	3.59
Others	5	1	6	1	1.68
Totals ..	3,606	2,926	3,106	2,787	8.07

(4) MARRIAGES, BIRTHS, DEATHS AND NATURAL INCREASE—1955

Race	Marriages	Births	Deaths	Net Increase	1954 Total	Increase per Mille.
Fijians	1,002	5,017	1,411	3,606	143,100	25
Indians	1,592	7,127	1,193	5,934	160,303	37
Europeans	44	148	30	118	8,460	14
Euronesians	51	241	33	208	7,748	27
Rotumans	22	166	53	113	4,134	27
Polynesians	35	194	51	143	4,988	29
Chinese	14	153	15	138	3,985	35
Others	8	21	1	20	671	30
Totals ..	2,768	13,067	2,787	10,280	333,389	31

(5) INFANT AND CHILD MORTALITY

	Births	DEATHS UNDER 5 YEARS						Infant Mortality Rate per Mille
		Under 1	1-2	2-3	3-4	4-5	Total	
1953—Fijians	4,903	293	138	40	20	14	505	60
Indians	7,133	341	28	13	9	9	400	48
1954—Fijians	5,294	267	131	44	20	13	475	50
Indians	6,921	340	44	20	15	12	481	49
1955—Fijians	5,017	368	82	33	10	14	507	73
Indians	7,127	312	35	12	5	11	375	40

APPENDIX IV (a)

HOSPITALS AND DISPENSARIES

<i>Main and Specialist Hospitals :—</i>							<i>Beds</i>
Colonial War Memorial Hospital, Suva	..	..	..	..	..	..	275
Tamavua Tuberculosis Hospital, Suva..	..	..	..	..	..	..	313
Mental Hospital, Suva	..	..	..	..	..	..	100
Fiji Leprosy Hospital, Makogai..	..	..	..	..	..	..	750
<i>District Hospitals :—</i>							
Lautoka	..	..	..	..	..	..	150
Labasa	..	..	..	..	..	..	100
Levuka	..	..	..	..	..	..	26
<i>Subsidized Hospitals :—</i>							
Methodist Mission Hospital, Ba	..	..	..	..	..	..	41
Nurse Morrison's Maternity Home, Suva	..	..	..	..	..	..	8
Waiyevo Cottage Hospital, Taveuni	..	..	..	..	..	..	4
Private Hospital, Colonial Sugar Refining Company, Ba							12
<i>Rural Hospitals :—</i>							
Wainibokasi	..	..	..	..	..	..	51
Waiyevo, Taveuni	..	..	..	..	..	..	52
Vunidawa	..	..	..	..	..	..	30
Koromumu, Sigatoka	..	..	..	..	..	..	38
Penang, Rakiraki, Ra	..	..	..	..	..	..	25
Nadi	..	..	..	..	..	..	26
Nailaga, Ba	..	..	..	..	..	..	26
Savusavu	..	..	..	..	..	..	40
Vunisea, Kadavu	..	..	..	..	..	..	26
Lomaloma, Lau	..	..	..	..	..	..	16
Nabouwalu, Bua	..	..	..	..	..	..	26
Rotuma	..	..	..	..	..	..	12
Lakeba, Lau	..	..	..	..	..	..	8
Matuku	..	..	..	..	..	..	9
Total number of beds available							2,164

See Appendix IV (b) for details of out-patients.

See Appendix IV (b) for details of in-patients.

*Disposition of Urban and Rural Dispensaries :—**In Suva :—*

Suva Gaol.
 Samabula.
 Tamavua Out-patients (General) Dispensary.

Southern District (under District Medical Officer) :—

Beqa Island	Nausori Clinic
Combined Schools, at Lodon	Navua
Korovou, Tailevu North	Nayavu
Lodon	Korovisilou
Lomanikoro	Viria
Mokani	Yaro, Kadavu
Namosi	

Southern District (Lomaiviti sub-district) :—

Gau	Koro
Kabara	Moala
Ono-i-lau	

Western District (under District Medical Officer, Lautoka) :—

Korolevuiwai	Natuatuacoko
Nadarivatu	Naviti, Yasawa
Nadi Airport (administered from Suva)	Sautabu
Namarai	Tau
Nanukuloa	Tavua
Nasau	Vatukoula

Northern District (under District Medical Officer, Labasa) :—

Dreketi	Visoqo
Lekutu	Wainikoro
Naduri	Wainunu
Udu	

Northern District (Taveuni sub-district) :—

Kioa Island Community	Rabe Island Community
Natewa	Saqani
	Tukavesi

Total Rural Dispensaries—44.

See Appendix IV (b) for details of out-patients.

APPENDIX IV (b)

The following tables show the analyses of in-patients and out-patients for the year 1955.

1. CENTRAL AND DISTRICT HOSPITALS ADMISSIONS—RACIAL DISTRIBUTION

Race	C.W.M. Hospital	Lautoka	Levuka	Labasa	Tamavua	Total
Fijians	1,481	1,014	551	448	357	3,851
Indians	1,833	3,537	64	1,787	80	7,301
Europeans and Euronians	535	368	71	30	14	1,018
Chinese and Others	175	60	32	51	62	380
Totals	4,024	4,979	718	2,316	513	12,550

2. OUT-PATIENTS THROUGHOUT THE COLONY

Race	C.W.M. Hospital	Tamavua	3 District Hospitals	14 Rural Hospitals	Rural Dispensaries	Totals
Fijians	6,114	1,458	21,128	54,345	127,651	210,696
Indians	6,025	510	44,624	37,392	36,628	125,179
Europeans and Euronians	1,712	100	2,660	150	....	4,622
Chinese and Others	555	159	1,366	8,030	13,227	23,337
Totals	14,406	2,227	69,778	99,917	177,506	363,834

3. GENERAL AND RURAL HOSPITALS—ADMISSIONS

Hospitals	Beds	Occupied Beds (Daily Average)	Admissions
Colonial War Memorial Hospital	275	245	4,024
Tamavua	313	311	513
Three District Hospitals	276	190	8,013
Fourteen Rural Hospitals	365	.....	7,550
Totals	1,229	.....	20,100

4. COLONIAL WAR MEMORIAL HOSPITAL OUT-PATIENTS—SUVA AREA

Attended by	Fijians	Indians	Europ., etc.	Others	Totals
European Medical Officers .. /	2,283	2,919	1,152	358	6,712
Dental Department	4,348	5,518	795	2,690	13,351
Eye Department	335	545	72	120	1,072
A.M.P. Casualty Department	3,831	3,106	560	197	7,694
Samabula Dispensary	389	3,470	....	2	3,861
Totals	11,186	15,558	2,579	3,367	32,690

APPENDIX V

COLONIAL WAR MEMORIAL HOSPITAL, SUVA

1. *Staff*—Medical Officer in charge, Surgeon Specialist, Physician Specialist, three general duties Medical Officers, two specialist Assistant Medical Practitioners, and four Assistant Medical Practitioners as resident housemen.

2. The Nursing Staff comprises, Matron, Assistant Matron, an average of twenty European Nursing Sisters, supplemented by locally trained staff nurses and student nurses.

3. One nurse from Fiji and two from the Cook Islands were engaged in refresher courses.

4. *Assistant Medical Practitioners' Out-patients Department*—The removal of this Department from a small wooden building in the Hospital grounds to a wing in the main Hospital structure, is scheduled to take place in 1956. This will readily make available a Medical Officer for consultations with the Assistant Medical Practitioners working in the non-paying out-patients department. When this improvement comes into operation the present consulting department in the main Hospital building will be incorporated therein so that injections and treatments referred from the paying out-patients department, and accident and police cases will be attended to in a properly designed out-patients department.

5. Specialist out-patient services are available as follows:—

Each morning 8.30 until 11 a.m...	..	..	..	Medical Officer
Afternoons—Monday	..	..	..	Physician Specialist
Tuesday	..	..	..	Orthopaedic clinic
Wednesday	..	..	..	Ward follow up. Surgical
Thursday	..	..	..	Surgeon Specialist
Friday	..	..	..	Physician Specialist

6. *Obstetric Ward*—This ward has been under the charge of Dr. D. J. Oldmeadow. There were 19 Caesarian sections among the 1,615 admissions. Seven maternal deaths occurred, namely two Fijians (one post-partum haemorrhage, one retained Placenta and post-partum haemorrhage—both admitted after second stage of labour); four Indians (two Cardiac, one Anaemia, one Anaemia pre-eclamptic ante-partum haemorrhage); and one other (Eclampsia—Disproportion—Myocarditis). A detailed analysis follows:—

OBSTETRIC WARD

				Fijians	Indians	Others	Total
No. of Admissions:—							
Total No. of Admissions	..	..	..	503	997	115	1,615
No. of Births	..	..	..	473	813	110	1,396
No. of Normal Labour	..	..	..	421	673	95	1,189
Abnormal Births	..	..	..	52	140	15	207
As follows: Caesarian	..	..	..	9	10	..	19
Breech	..	..	..	7	16	2	25
Brow	..	..	..	..	..	..	..
Face	..	..	..	1	1	1	3
Shoulder	..	..	..	3	3	..	6
Persistent Posterior	..	..	..	5	8	1	14
Multiple	..	..	..	4	9	..	13
Premature Births	..	..	..	16	50	7	73
Stillbirths	..	..	..	7	43	4	54
Complications:—							
Toxaemia	..	..	..	8	64	2	74
Eclampsia	..	..	..	..	4	1	5
Ante-Partum Haemorrhage	..	..	..	7	16	3	26
Post-Partum Haemorrhage	..	..	..	34	21	5	60
Retained Placenta	..	..	..	5	4	1	10
Placenta Praevia	..	..	..	6	4	..	10
Anaemia	..	..	..	..	44	..	44
Pyelitis	..	..	..	1	6	1	8
Contracted Pelvis	..	..	..	..	2	..	2
Intercurrent Infection	..	..	..	10	8	1	19
Instrumental Cases	..	..	..	7	14	3	24
Deaths: Maternal	..	..	..	2	4	1	7
Neo-Natal	..	..	..	11	22	4	37
Ante-Natal Clinic:—							
First Visits	..	..	..	727	1,617	153	2,497
Return Visits	..	..	..	1,907	3,820	480	6,207
Total visits	..	..	..	2,634	5,437	633	8,704

7. *X-ray Department*—The staff includes one radiographer in charge, one radiographer, and Assistant Medical Practitioner K. Lal as an assistant radiographer. There is also a dark room technician and typist, clerk and orderly. In the absence of a fully qualified radiographer from August until December, A.M.P. Lal performed the duties very satisfactorily.

Five students completed their course in radiography—one student from Western Samoa, one from Cook Islands and three from Fiji.

Total figures for the past six years are as follows:—

1950	7,703	1953.. .. .	11,203
1951	11,736	1954.. .. .	11,856
1952	9,749	1955.. .. .	12,854

This shows an increase of 5,151 since 1950.

Inductothermy	5
Infra-red	25

This year showed an increase in the service of the department—

	European	Fijian	Indian	Others
In-patients	243	1,392	1,420	251
Out-patients	911	3,710	3,342	823
Staff	66	410	58	104
No. of chest films	806	3,707	3,043	806
Total number of X-rays—12,854.				

Classification of Special X-ray examinations:—

Intra-venous Pyelogram	96	Retrograde Pyelograms	23
Cholecystogram	49	Bronchogram	6
Barium Meals	180	Myelogram	2
Barium Enemas	39	100 mm. chest	6,748
Heart and Chest Screening	119	Lipiodol injection	8

8. *The Operating Theatre*—The Operating Theatre is air-conditioned and located adjacent to the X-ray Department. A domestic type washing machine was installed for the purpose of washing soiled operating theatre linen in cold water prior to it being sent to the Central Laundry for laundering.

Operations performed during the year at the Colonial War Memorial Hospital, were as follows:—

Plastic Surgery :—

Thiersch grafts	12
Tube graft	5
Plastic graft	1
Freeing of contact	4
Graft to eyebrow	1
Wolfes	2
Z. Plasty	1
	—
	26
	==

Elephantiasis :—

Amputation scrotum	6
Amputation Labia	1
Excision sub-cutaneous tissue arm	2
	—
	9
	==

Head :—

Suturing scalp wound	2
Elevation fractured zygoma	1
Craniotomy	1
Removal Tumour	1
Meningo-encephalocele	1
Elevation Depressed fractured skull	1
	—
	7
	==

Diathermy :—

Cervix	7
Bladder	4
Warts	1
Opening Colostomy	5
Urethral Caruncle	1
Foot	11
Tongue	1
	—
	21
	==

Wound Toilets :—

Debridement and suturing	2
Lacerated arm dressing	2
	—
	4
	==

Anaesthetic :—

Spinal	23
Ethyl Chloride and Ether	711
Local	308
Intravenous Pentothal Gas	
Oxygen and Ether	259
	—
	1,301
	==

Gynaecology :—

Biopsy cervix	7
Colpo-perineorrhaphy	3
Dilatation and Curettage	101
Dilatation Cervix	1
Examination under anaesthesia	8
Gilliam's ventro-suspension	8
Hysterectomy	14
Hysterotomy	1
Incision Pelvic abscess	1
Myomectomy	2
Oophorectomy	11
Repair recto-vaginal fistula	1
Salpingectomy	7
Sterilization	15
Vaginal Hysterectomy	2
Ventro-fixation	3
Anterior Colporrhaphy	6
Removal Intra-abdominal Foetus	1
Excision Cervical Polyp.	1
Ectopic Gestation	4
Sub Total Hysterectomy	3
Surgical Induction	1
Caesarian section	21
Manual Removal of placenta	1
Removal Ovarian Cyst	4
	—
	228
	==

Genito-Urinary :—

Circumcision	5
Cystoscopy and Retrograde ..	35
Cystoscopy and Pyelogram ..	22
Catheterization	15
Excision Hydrocoele	4
Incision Hydrocoele	2
Excision Spermatocoele	1
Nephro-lithotomy	2
Nephrectomy	2
Orchidectomy	6
Pyelolithotomy	2
Prostatectomy	2
Removal Cyst Testis	1
Supra-pubic Cystotomy	17
Urethral Dilatation	43
Removal Varicocele	1
Plastic Repair neck bladder ..	1
Uretero-lithotomy	3
Amputation scrotum	2
Undescended Testis	1
Urethral Fistula	1
Biopsy Scrotum	1
	<hr/>
	185
	<hr/>

Gastro-Intestinal :—

Appendicectomy . . .	65
Drainage appendix abscess ..	6
Cholecystectomy . . .	6
Cholecystostomy	3
Colostomy	3
Closure of colostomy	3
Entero-enterostomy	1
Excision Pilonidal sinus . .	2
Gastro-enterostomy	7
Haemorrhoidectomy	11
Intussusception	1
Laparotomy	16
Oversew Ruptured Gastric Ulcer	5
Oversew Duodenal Ulcer ..	2
Partial Gastrectomy	8
Ramstedt's Operation	1
Splenectomy	1
Sigmoidoscopy	9
Vagotomy	2
Bowel Resection	4
Hemi-colectomy	1
Freeing of adhesions	1
Trendelenburg's operation ..	9
Cholecystoduodenostomy ..	1
Total Gastrectomy	1
Intestinal Obstruction	1
	<hr/>
	174
	<hr/>

Dental :—

Sequestrectomy Jaw	1
Extraction teeth	5
Avulsion Dental nerve	1
Removal Adenoma	1
	<hr/>
	8
	<hr/>

Insertion Radium :—

Cervix	12
Cheek	1
Lip	5
Tongue	2
Eye socket	1
Neck	1
	<hr/>
	22
	<hr/>

Thyroid :—

Thyroidectomy	3
Sub Total Thyroidectomy ..	3
Excision Thyroid Adenoma ..	4
	<hr/>
	10
	<hr/>

Minor Surgery :—

Biopsy glands	7
Excision Lipoma	5
Exploration wound and packing	3
Excision Dermoid Cyst. ..	3
Excision Fibrotic Cyst. ..	5
Excision Epithelioma	2
Excision Granuloma	1
Excision Sinus	2
Excision Rodent Ulcer	4
Excision Warts and moles ..	4
Excision sebaceous cyst ..	1
Excision Tumour Glands ..	3
Incision Ischio-rectal abscess ..	1
Incision abscess	12
Ligation varicose veins ..	8
Removal foreign bodies . .	5
Removal Olecranon Bursa ..	1
Repair Tendons	2
Suturing deep Lacerations ..	4
Incision and curettage wounds	1
Curettage of sinus	2
Scraping Hyperkeratosis ..	1
Dilation of anus	3
Biopsy lip . . .	1
Aspiration lip	1
Removal gravel jaw	2
Manipulation joint	2
Drainage sub-phrenic abscess ..	1
Exploration Popliteal region ..	1
Drainage liver abscess	1
Excision Plantar warts	1
Drainage Empyema	1
Biopsy Tongue	1
Excision Brachial Cyst. ..	1
Intra-articular Injection ..	4
Excision scar	2
Exploration Foot	1
Excision leg ulcer	1
Examination of Knee	1
Drainage leg abscess	1
	<hr/>
	103
	<hr/>

Ophthalmic :—

Extraction Lens	144
Enucleation	8
Evisceration of eye	6
Iridectomy	17
Needling Cataract	14
Plastic repair Eyelid	16
Pterygium	35
Repair strabismus	1
Repair prolapsed iris	2
Removal cyst.	3
Removal Meibomian Cyst ..	4
Tarsoplasty	3
Trephine	1
Examination Eyes	5
Plastic repair Entropion ..	3
Recession of Iris	2
Paracentesis	1
Carbolization Eye	1
Removal sutures	4
Dacryrocystectomy	4
Biopsy cyst eye	2
Excision Iris	3
Suturing cornea	4
Sclerotomy	2
	<hr/>
	285
	<hr/>

Orthopaedic :—

Amputations—fingers, toes and limbs	9
Arthroplasty	1
Exploration fractures	2
Insertion Kirschner wire	2
Insertion Steinmann's pin	4
Manipulation joints	2
McMurray's osteotomy	1
Manipulation Talipes and P.O.P.	2
Osteotomy	1
Plating Fractured Radius	4
Removal calcaneal spur	1
Removal Bone Tumour	1
Reduction Fracture	4
Sequestrectomy	11
Suturing Tendons	5
Incision and Plaster	1
Exploration Removal great Trochanter	1
Removal Patella Bursa	1
Excision Fibula	1
Exploration Tibia	2
Open Reduction	2
Removal Head Radius	1
Excision Patella	2
Removal Coccyx	1
Laminectomy	1
	—
	63
	==

Ear, Nose and Throat :—

Antrum washout	9
Adenoidectomy	1
Laryngoscopy	1
Radical Mastoidectomy	3
Removal Nasal Polyp.	6
Removal Salivary Duct	2
Removal mastoid packing	1
Repair hair lip	4
Repair cleft palate	3
Submucous resection	1
Tonsillectomy	36
Tracheotomy	4
Laryngoscopy for Removal F.B.	2
Antrostomy	6
Examination mouth	1
Scraping left Ear	1
Oesophagoscopy for Removal F.B.	9
Examination nose	1
Antrum Proof Puncture	8
	—
	99
	==

Neuro Surgery :—

Cordotomy	1
Lumbar sympathectomy	3
	—
	4
	==

Heart Surgery :—

Mitral Valvotomy	1
--------------------------	---

Breast Surgery :—

Biopsy Breast	2
Simple Mastectomy	4
Radical Mastectomy	6
Excision Fibroadenoma	1
	—
	13
	==

Hernia Repairs :—

Inguinal	23
Incisional.. .. .	2
Strangulated	3
Umbilical.. .. .	1
Traumatic	1
	—
	30
	==

Hernioplasty Nylon Graft :—

Inguinal	12
Strangulated	1
Umbilical.. .. .	2
	—
	15
	==

Hernioplasty Plastic Graft :—

Inguinal	14
------------------	----

Herniotomy :—

Inguinal	11
------------------	----

Exploration Inguinal Region ..

1

Chest :—

Aspiration of pleural cavity	1
Rib resection drainage	4
Removal Dermoid Tumour	1
Thoracotomy	2
Excision Tumour chest wall	1
	—
	9
	=

Laundry Department—The total amount of linen laundered in the Hospital Laundry was 1,419,654 articles. This is an increase of 65,543 articles over 1954.

Sewing Room—13,813 new articles were made and 23,495 articles were mended, a total of 37,308 articles.

Finance—The total Revenue of the Hospital for 1954 was £10,713 0s. 3d. as follows:—

Dental Department	£2,148	0	6
X-ray Department	813	14	0
Hospital Fees etc.	7,475	3	5
Treasury Form ' S '	258	2	4

Total £10,713 0 3

Deaths—A list of deaths occurring in the Colonial War Memorial Hospital is noted below:—

	European	Fijian	Indian	Others	Total
Tuberculosis of—					
respiratory system	9	1	.	10
meninges and central nervous system ..	.	6	3	.	9
intestines peritoneum and mesenteric glands	.	.	1	.	1
Amoebiasis	2	.	.	2
Septicaemia and pyaemia	1	3	1	.	5
Acute Poliomyelitis	1	.	.	.	1
Infective hepatitis	1	1	.	.	2
Ascariasis	1	.	1
Malignant neoplasm of—					
stomach	2	.	.	2
intestine	1	.	.	1
rectum	1	.	1
larynx	2	.	.	2
cervix uteri	1	.	.	1
other and unspecified parts of uterus	.	.	1	.	1
skin	1	.	.	.	1
bone and connective tissue	1	.	1
other and unspecified sites	7	1	.	8
Leukaemia and Aleukaemia	1	.	1
Lymphosarcoma	1	.	.	1
Benign neoplasms	1	.	1
Diabetes mellitus	1	1	1	3
Other deficiency states	1	2	.	3
Iron deficiency anaemias	2	3	.	5
Other anaemias	1	1	.	2
Asthma	1	.	1
Blood diseases	1	.	1
Vascular lesions affecting Central Nervous					
System	1	4	1	6
Non-meningococcal meningitis	4	2	1	7
Epilepsy	2	.	.	2
Inflammatory disease of Eye	1	1
Otitis media and Mastoiditis	1	.	.	1
Disease of Nervous System and sense organs	2	.	2
Rheumatic Fever	1	2	.	3
Chronic rheumatic heart attack	6	6	.	12
Degenerative heart Disease	4	3	14	4	25
Other diseases of Heart	1	2	.	3
Hypertension with heart disease	2	1	3
Diseases of Arteries	1	2	.	3
Other diseases of Circulatory System	1	.	1
Lobar Pneumonia	1	3	.	4
Broncho-pneumonia	8	4	.	12
Unspecified pneumonia	1	.	.	1
Acute Bronchitis	1	.	1
Bronchitis, chronic	1	.	.	.	1
Pneumoconiosis	1	.	1
Ulcer of Stomach	1	.	.	1
Ulcer of Duodenum	2	2	.	.	4
Gastritis and duodenitis	1	.	.	1
Appendicitis	1	1	.	2
Intestinal obstruction and Hernia	2	2	.	4
Gastro-enteritis and colitis—					
between four and weeks two years	2	4	.	6
ages two years and over	1	.	1
Chronic enteritis and ulcerative colitis	1	.	.	1
Cirrhosis of Liver	2	1	.	3
Cholelithiasis and Cholecystitis	2	.	2
Other Diseases of digestive system	3	3	.	6
Acute nephritis	1	.	.	1
Chronic and other unspecified nephritis	2	7	1	10
Infections of Kidney	1	3	4
Hyperplasia of prostate	2	.	4	.	6
Sepsis of pregnancy childbirth and puerperium	.	.	1	.	1
Abortion without mention of sepsis or toxæmia	.	.	1	.	1
Other complications of pregnancy etc.	1	.	.	1
Infections of skin and subcutaneous tissue ..	.	1	2	.	3
All other diseases of skin	1	.	1
Congenital malformations of circulatory system	.	.	2	.	2
All other congenital malformations	1	1
Ill-defined diseases peculiar to early infancy ..	.	1	1	.	2
Senility without mention of psychosis	1	.	.	.	1
All other ill-defined causes of morbidity ..	1	.	.	.	1

DEATHS CAUSED BY ACCIDENTS

“ E ” Code—

138 Motor Vehicle accidents	..	..	..	.	1	2	.	3
140 Accidental poisoning	..	..	..	1	.	.	.	1
141 Accidental falls	..	..	..	1	1	3	.	5
143 Accident caused by fire and explosion of combustible material	..	..	..	.	.	2	.	2
144 Accident caused by hot substance	.	..	.	.	2	1	.	3
145 Accident caused by firearm	.	..	..	.	1	.	.	1
148 Suicide and self-inflicted injury	..	..	.	.	4	.	.	4
149 Homicide and injury purposely inflicted by other persons	..	..	..	.	.	1	.	1

“ N ” Code—

138 Fracture of skull	..	..	..	2	2	1	.	5
140 Fracture of limbs	..	..	..	.	1	2	.	3
143 Head Injury (excluding fracture)	..	..	.	.	2	.	.	2
145 Laceration and open wounds	..	..	.	.	1	2	.	3
148 Burns	..	..	..	.	3	3	.	6
149 Effects of poisons	..	..	..	1	.	.	.	1

APPENDIX VI

TUBERCULOSIS DIVISION—1955

1. Dr. L. G. Poole continued his duties as Tuberculosis Control Officer throughout the year. Dr. G. D. Murphy continued as Medical Officer-in-Charge, Tamavua Hospital.

2. *Tuberculosis Control*—A register of all new cases of tuberculosis that are notified is kept by the Epidemiological Section of the Medical Department.

	1952	1953	1954	1955
Europeans	3	11	11	10
Part-Europeans	9	7	16	13
Fijians	301	359	410	494
Indians	95	93	170	127
Others	45	28	54	77
Total	453	498	667	721

3. *Tamavua Tuberculosis Hospital*—Tamavua Hospital consists of six large wards with a verandah along one side and end of each ward. In addition there are two four-bed wards which are in use for post-operative surgical cases, and a few single rooms. 299 adult beds and 21 cots are available. A recreation room is available for the showing of films and for other forms of organized entertainment. The kitchen provides a minimum of one thousand meals per day.

4. Hospital Returns and Statistics—1951 to 1955.

	1951	1952	1953	1954	1955
Admissions	220	257	360	487	513
Discharges	118	137	248	373	465
Deaths	86	46	53	42	27
Daily average number of					
In-patients	250	250	262	295	311
Old cases Re-admitted	....	....	58	123	144
Total	674	690	981	1,320	1,460

5. A small non-tuberculosis Out-patients' Department operates for treating emergencies and the minor ailments of the staff and of the Fijians and Indians living in the neighbourhood. Ordinary cases are seen daily between 8 a.m. and 9 a.m.—emergencies, at any time. 1,612 patients were seen.

6. *Tuberculosis Out-patients' Department*—The Tuberculosis Out-patients' Department is extremely busy as it deals with cases for investigation and review, collapse therapy refills, and also maintains a Chest-X-ray interpretation service for the Southern area. The work of this Department is increasing annually, due to the greater emphasis which is being placed on the prevention of spread of this disease.

7. The number of people attending for investigation or review was 1,285 in 1952, 2,058 in 1953, 2,048 in 1954 and 2,227 in 1955. A reduction from 14,095 in 1953, to 10,639 in 1954, in the films received for interpretation from other hospitals was brought about by the tuberculosis wards in the Northern and Western areas inaugurating their own film interpretation service. The figure for 1955 is 12,349, which represents an average of 45 films per working day.

8. *Laboratory*—The Laboratory at Tamavua Hospital is staffed by four Fijian technicians under an Assistant Medical Practitioner, and is equipped to carry out routine sputum and blood examinations on patients and staff. Other more elaborate investigations are referred to the central laboratory at Suva.

9. Comparison of the examinations made during 1952, 1953, 1954 and 1955.

Year	Sputum			P.L. Swab			BSR	Mantoux	BCG	Blood Examination				Specimens sent to Suva Lab.	Guinea Pig Inoculation	
	Dir.	Conc.	Cult.	Dir.	Conc.	Cult.				FBC	HB.	HB. RBC. WBC.	Total			
1952	..	4,760	32	104	694	31	111	2,179	559	21	725	4	40	769	708	10
1953	..	7,587	56	135	531	86	175	3,654	379	..	170	..	574	744	685	..
1954	..	5,338	181	24	1,666	431	245	3,594	287	78	461	..	240	701	927	..
1955	..	5,781	224	171	2,902	217	476	3,754	203	6	499	..	123	622	774	1

Approximately 6,000 sputum samples were examined; 600 blood tests carried out; 200 Mantoux tests done; and 3,700 sedimentation rates estimated.

10. An X-ray unit, capable of working at 200 ma and equipped with tomography and mass miniature attachments, is installed at the Hospital. X-ray exposures are made at the bedside with the use of a Watson Victor D.3 Unit. The exposures and developing process are undertaken by three Fijians who are being trained locally.

11. The returns of the X-ray Department follow:—

Year	Fijians			Indians			Europeans			P/European			Rotumans			Others			Total
	IP.	OP.	ST.	IP.	OP.	ST.	IP.	OP.	ST.	IP.	OP.	ST.	IP.	OP.	ST.	IP.	OP.	ST.	
1952	653	706	303	231	309	21	3	43	35	40	51	7	43	40	16	70	86	3	2,660
1953	1,254	1,275	563	356	478	116	25	81	63	39	57	12	67	41	12	59	126	5	4,629
1954	1,401	1,474	595	358	620	60	11	94	50	80	72	19	37	48	18	99	126	9	5,161
1955	1,214	1,678	587	260	773	69	4	94	41	62	111	10	..	..	..	169	227	34	5,334

IP. = In-Patient. OP. = Out-Patient. ST. = Staff

12. A dental clinic for in-patients of Tamavua Hospital was established at the Hospital in 1952, and has been fully equipped by the Anti-Tuberculosis Fund. At least two dental sessions were held each week during the period under review.

13. In the Operating Theatre the following procedures were carried out during 1954 and 1955.

	1954	1955
Apicolysis with polythene ball plombage	.. 30	24
Phrenicclasis	.. .. 111	27
Lung decortication	.. .. 1	1
Empyema Drainage	.. .. 2	3
Appendicectomy	.. .. 1	....
Circumcisions	.. .. 3	11
Artificial Pneumothorax	.. .. 8	....
Pneumoperitoneum	.. .. 109	19
Artificial Pneumothorax refills	.. .. 351	161
Pneumoperitoneum refills	.. .. 8,291	4,594
Bronchoscopy	.. .. ....	1

14. The Occupational Therapy Section continues to prove popular with the patients. One of the main items produced is a chair with a cane back and seat. Patients are engaged in making the seats and backs; other items made are baskets and walking sticks. Knitting, embroidery, and crochet work is given to the bed patients, and all take a keen interest. Assistance in these last named occupations was given by members of the Fiji branch of the British Red Cross Society who attended the hospital each week.

15. Motion pictures have been shown each week for the benefit of the patients. Local amateur organizations gave concerts during the year and their voluntary efforts have been greatly appreciated by the patients and staff.

16. St. Andrews' Guild visited the hospital prior to Christmas and distributed gifts to all patients. The hospital Christmas tree was held on Christmas morning and gifts which were purchased from the Patients' Comfort Fund, and Occupational Therapy profits were distributed to each patient in the hospital.

17. At the Tamavua Hospital Plantation during the year 1955, root crops and vegetables were harvested to the value of £1,045 19s. 9d., 3,144 dozen eggs valued at £1,084 8s. 9d. and dressed poultry to the value of £102 5s. 0d. from the poultry farm.

ANTI-TUBERCULOSIS CAMPAIGN

18. *Mantoux Testing and B.C.G. Vaccination*—This aspect of the Tuberculosis Control programme was conducted by two experienced Medical Practitioners, both of whom have also had special training in the United Kingdom which was made possible a few years ago through Fellowships awarded by the United Kingdom National Association for the Prevention of Tuberculosis. On completion of the preliminary tuberculosis survey in Fiji, which was conducted by means of a grant from the United Kingdom Colonial Development and Welfare Funds, these Assistant Medical Practitioners have been routinely instructing Assistant Medical Practitioners in the rural areas in the procedures of Mantoux testing and B.C.G. vaccination. The rural Assistant Medical

Practitioners requisition through their District Medical Officers for the appropriate equipment and reagents. In the latter part of 1954, one of the Assistant Medical Practitioners engaged in the Tuberculosis Control programme was seconded to the British Solomon Islands Protectorate to conduct a tuberculosis survey. He returned to Fiji in mid-1955. As a precautionary measure Mantoux testing and B.C.G. vaccination was suspended in November and December during an outbreak of poliomyelitis.

19. The Mobile mass miniature X-ray unit, which was a gift from the Fiji War Memorial Anti-Tuberculosis Trust Fund, operated on the island of Viti Levu, particularly at the gold mines, Vatukoula, Tavua, Rakiraki and Nanukuloa in the Western District, and between Nayavu, Suva and Serua in the Southern District. The Mobile Unit commenced its operations on the 2nd February, and continued through until 23rd December, during which time 34,384 chest X-rays were taken. The Mobile mass miniature X-ray unit was transferred to the island of Vanua Levu in December, where it was put into operation initially in the vicinity of Labasa.

20. Tables below give the results obtained by the Mobile mass miniature X-ray unit during the period 2nd February, 1955—7th November, 1955, and show the percentage of positives by age group, race, sex and all races combined.

21. Throughout the itinerary of the Mobile mass miniature X-ray unit, a cinematograph projector associated with this unit is used for the showing of educational films. This innovation is appreciated by the rural communities and greatly assists in the assembly of individuals in the villages, making larger numbers readily accessible for chest X-rays.

22. There are approximately 400 beds which constitute recognised Tuberculosis wards in the various hospitals. The War Memorial Anti-Tuberculosis Trust Board continued to make donations of equipment and supplies for the benefit of patients in the Tuberculosis wards at the various hospitals. The cost of B.C.G. vaccine is met from the War Memorial Anti-Tuberculosis Trust Fund.

RETURNS FROM MASS MINIATURE X-RAY UNIT

Age Group	ALL RACES—BOTH SEXES			MALES—ALL RACES			FEMALES—ALL RACES		
	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent
0— 4 ..	82	3	3.66	48	2	4.17	34	1	2.94
5— 9 ..	1,578	....	....	841	....	....	737	....	....
10—14 ..	7,941	12	.15	4,470	7	.16	3,471	5	.14
15—19 ..	5,608	29	.51	3,225	18	.56	2,383	11	.46
20—24 ..	3,455	19	.55	2,310	7	.3	1,145	12	1.05
25—29 ..	2,744	18	.65	1,667	9	.54	1,077	9	.84
30—34 ..	2,400	17	.71	1,553	5	.33	847	12	1.42
35—39 ..	1,703	9	.52	1,108	6	.54	595	3	.5
40—44 ..	1,394	16	1.15	891	11	1.23	503	5	.99
45—49 ..	1,035	17	1.64	716	7	.98	319	10	3.13
50—54 ..	761	15	1.97	498	10	2.01	263	5	1.9
55—59 ..	483	6	1.24	375	5	1.33	108	1	.93
60—64 ..	409	7	1.71	319	5	1.57	90	2	2.22
65— ..	373	8	2.12	305	6	1.97	68	2	2.94
Total ..	29,966	176	....	18,326	98	....	11,640	78	....

RETURNS FROM MASS MINIATURE X-RAY UNIT

Age Group	FIJIAN—BOTH SEXES			FIJIAN—MALES			FIJIAN—FEMALES		
	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent
0— 4 ..	56	3	5.35	32	2	6.25	24	1	4.17
5—9 ..	912	....	....	490	....	....	422	....	....
10—14 ..	3,631	8	.22	1,966	6	.31	1,665	2	.12
15—19 ..	3,376	20	.59	1,759	12	.68	1,617	8	.49
20—24 ..	2,111	17	.81	1,263	7	.55	848	10	1.18
25—29 ..	1,553	14	.9	812	5	.62	741	9	1.21
30—34 ..	1,261	16	1.27	692	4	.58	569	12	2.11
35—39 ..	959	6	.63	557	3	.54	402	3	.75
40—44 ..	847	14	1.66	489	10	2.04	358	4	1.12
45—49 ..	621	15	2.42	378	6	1.59	243	9	3.7
50—54 ..	460	11	2.39	275	6	2.18	185	5	2.7
55—59 ..	295	5	1.69	208	4	1.92	87	1	1.15
60—64 ..	202	6	2.97	140	4	2.86	62	2	3.23
65— ..	192	5	2.6	145	3	2.07	47	2	4.26
Total ..	16,476	140	....	9,206	72	....	7,270	68	....

RETURNS FROM MASS MINIATURE X-RAY UNIT

	INDIAN—BOTH SEXES			INDIAN—MALES			INDIAN—FEMALES		
Age Group	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent
0—4 ..	16	....	....	11	....	....	5	....	....
5—9 ..	407	....	....	237	....	....	170	....	....
10—14 ..	3,179	1	·03	1,901	....	....	1,278	1	·08
15—19 ..	1,668	5	·3	1,150	4	·35	518	1	·19
20—24 ..	940	....	....	738	....	....	202	....	....
25—29 ..	866	3	·35	614	3	·49	252	....	....
30—34 ..	872	....	....	672	....	....	200	....	....
35—39 ..	542	3	·55	405	3	·74	137	....	....
40—44 ..	378	1	·26	273	....	....	105	1	·95
45—49 ..	284	1	·35	229	....	....	55	1	1·82
50—54 ..	219	4	1·83	156	4	2·56	63	....	....
55—59 ..	131	....	....	118	....	....	13	....	....
60—64 ..	170	....	....	149	....	....	21	....	....
65— ..	161	2	1·24	144	2	1·39	17	....	....
Total ..	9,833	20	....	6,797	16	....	3,036	4	....

RETURNS FROM MASS MINIATURE X-RAY UNIT

	OTHER RACES—BOTH SEXES			OTHER RACES—MALES			OTHER RACES—FEMALES		
Age Group	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent	X-Rayed	Positive	Per Cent
0—4 ..	10	....	....	5	....	....	5	....	....
5—9 ..	259	....	....	114	....	....	145	....	....
10—14 ..	1,131	3	·27	603	1	·17	528	2	·38
15—19 ..	564	4	·71	360	2	·63	248	2	·81
20—24 ..	404	2	·5	309	....	....	95	2	2·11
25—29 ..	325	1	·31	241	1	·41	84	....	....
30—34 ..	267	1	·37	189	1	·53	78	....	....
35—39 ..	202	....	....	146	....	....	56	....	....
40—44 ..	169	1	·59	129	1	·78	40	....	....
45—49 ..	130	1	·77	109	1	·92	21	....	....
50—54 ..	82	....	....	67	....	....	15	....	....
55—59 ..	57	1	1·75	49	1	2·04	8	....	....
60—64 ..	37	1	2·7	30	1	3·33	7	....	....
65— ..	20	1	5·00	16	1	6·25	4	....	....
Total ..	3,657	16	....	2,323	10	....	1,334	6	....

APPENDIX VII

MENTAL HOSPITAL

1. Details of staff are as follows:—

Medical Superintendent (part-time)	..	..	1
Head Attendant .. .. .	..	..	1
Assistant Attendant .. .. .	..	..	1
Female Samoan Orderlies .. .. .	..	..	6
Female Fijian Orderlies .. .. .	..	..	2
Male Fijian Orderlies .. .. .	..	..	6
Male Samoan Orderlies .. .. .	..	..	5
Male Indian Cook .. .. .	..	..	1
Male Fijian Cook .. .. .	..	..	1

2. The following table shows admissions and discharges for 1955:—

Remaining in hospital at the end of 1954	139
Admitted during 1955	75
	—
	214
Discharged during 1955	11
Absent on trial during 1955	45
Died in institution during 1955	4
Remaining in hospital at end of 1955	154
	—
	214

3. The following table shows the length of residence of the patients remaining in the Mental Hospital at the end of 1955:—

Number of Years	Males	Females	Total
0 to 1 year	22	16	38
1 to 2 years	15	6	21
2 to 3 years	7	10	17
5 years and over	47	31	78
	—	—	—
	91	63	154

4. The patients have been classified as follows:—

Manic depressive psychosis	89
Involucional melancholia	1
Schizophrenia	71
Mental Defectives	13
Epilepsy with psychosis	7
Senile psychosis	21
Psychosis with cerebral tumour	1
General paralysis of the insane	1
Spastic Diplegia	1
Alcoholism	3
Reactive depression	1
Cerebral Arteriosclerosis	5
	<hr/> 214

5. The percentage racial distribution and sex of patients is as follows:—

	Males	Females	Total	Percentages
Europeans	13	9	22	10·5 per cent
Fijians	27	15	42	19·5 per cent
Indians	68	65	133	62·1 per cent
Others	13	4	17	7·9 per cent

6. The deaths which occurred at the institution were from the following causes:—

General Condition	Cause
Senile Dementia	Cardiac failure
Schizophrenia	Pulmonary Tuberculosis
Manic Depressive	Pulmonary Tuberculosis
Manic Depressive	Cardiac failure

7. The following table shows the race and sex of various patients:—

	Europeans		Fijians		Indians		Others		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M. & F.
Remaining at end of 1954	8	4	18	8	46	43	8	4	79	60	139
Admitted during 1955	5	5	9	7	22	22	5	..	41	34	75
											<hr/> 214
Absent on trial during 1955	4	4	5	2	8	17	5	..	22	23	45
Discharged in 1955	2	..	2	1	2	4	..	..	6	5	11
Died during 1955 .. ..	..	..	..	1	..	3	..	..	..	4	4
Remaining at end of 1955	7	5	21	10	55	44	8	4	91	63	154
											<hr/> 214
Total number absent on trial 1954, including those absent on trial during 1955	7	7	17	16	31	36	5	..	60	59	

8. Forty-eight patients received E.C.T.

9. Eight patients received Insulin treatment.

10. Visits were paid by the Board of Visitors on 31st March, 1955, 1st July, 1955, and 30th September, 1955.

11. Gifts to the institution were made as follows:—

- Musadilal and Sons, Indian sweet meats to all patients.
- Dr. Williams and Mrs. H. Barnard, Soft drinks, sandwiches and cakes to all patients.
- Mrs. Barnard, A Christmas gift to each patient.
- Mr. Miller (British Council), screening of films.
- Dr. Oldmeadow and Mr. L. Martin, soft drinks, ice-cream, sweet biscuits and sweets to each patient.
- Presbyterian Xmas Cheer. (Mrs. Derrick), Groceries, sweets, plum-pudding, for the patients.
- Fiji Broadcasting House, per Mrs. Derrick, Cigarettes.
- Sundar Jee and Bros., Indian sweet meats for each patient.
- Mr. and Mrs. A. R. Sahu Khan, soft drinks for all patients.
- Mrs. Willis, Magazines, papers and books.
- Mrs. Bentley (Malaya Fund), weekly supply of tobacco for the patients who returned from Malaya.

APPENDIX VIII (a)

FIJI LEPROSY HOSPITAL, MAKOGAI

1. *Staff Changes*—Dr. Edmonds, was in charge until Dr. W. H. McDonald assumed duty on 21st January on return from overseas leave.

Sister Mary Felicitas was Sister in charge during the year.

Mother Mary Agnes, who had been living in retirement after her long service in charge, died on 17th March from broncho-pneumonia complicating a fractured femur caused by a fall. Her passing was greatly felt throughout the Pacific.

Sister Mary Clement who joined the staff in 1913 commenced pre-retirement leave. While spending this leave at Makogai she has conducted the children's clinic for the staff and has continued to be a ready volunteer for any extra duties on behalf of the patients.

2. *Teaching*—Students from the Central Medical School have come during the year to see and be taught some of the problems of leprosy.

3. Daily average for the Different Administrations for the year 1955—

New Zealand—					
European	..	..	..	1.00	
Euronesian	..	..	..	0.96	
Chinese	..	..	..	0.17	
				————	2.13
Western Samoa—					
Euronesian	..	..	..	5.75	
Chinese	..	..	..	1.00	
Samoan	..	..	..	48.24	
				————	54.99
Cook Islands—					
Cook Islanders	..	..	..	32.14	
Niue Islanders	..	..	..	4.33	
				————	36.47
Tonga—					
Tongan	..	..	..	28.78	28.78
Gilbert Islanders—					
European	..	..	..	0.80	
Euronesian	..	..	..	3.63	
Chinese	..	..	..	1.00	
Gilbert Islanders	..	..	..	104.44	
				————	109.87
Fiji—					
European	..	..	..	1.00	
Euronesian	..	..	..	7.21	
Chinese	..	..	..	5.38	
Melanesian	..	..	..	21.45	
Rotuman	..	..	..	16.34	
Samoan	..	..	..	1.00	
Banaban	..	..	..	10.45	
Indian	..	..	..	191.94	
Fijian	..	..	..	138.46	
				————	393.23
					———— 625.47

4. *Statistics*—The average daily number of patients was 625 of which 393 (excluding Banabans) represented patients from within the Colony of Fiji.

		Euro- pean		Euro- nesian		Solomon Islanders		Fijian		Indian		Chinese		Rotuman		Samoan		Niue Islanders		Cook Islanders		Tongan		Bana- ban		Gilbert Islanders		Totals		To- tals M. & F.
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
In Hospital	1/1/55	1	1	10	6	11	11	90	50	154	49	7	..	9	7	34	21	3	2	20	14	22	9	7	3	66	40	434	213	647
Admissions	..	..	..	2	1	1	1	12	5	12	5	2	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	30	14	44
Deaths	..	..	..	..	1	..	..	2	..	5	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	1	10	2	12
Discharges	..	..	..	..	..	..	..	12	3	21	4	2	..	..	..	6	2	1	..	4	..	..	2	..	..	3	2	50	14	64
Unconditional Discharges	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Inmates	31/12/55	..	1	12	6	11	12	88	51	140	50	7	..	9	8	27	20	3	1	16	14	20	7	8	3	63	37	404	210	614
Totals	..	1		18		23		139		190		7		17		47		4		30		27		11		100		614		

The proportions of the main racial groups at the end of 1955 were:—

Indians	31 per cent	Samoans	9 per cent
Fijians	22 per cent	Cook Islanders ..	6 per cent
Gilbertese (excluding Banabans) ..	18 per cent	Tongans	4 per cent

TABLE II
RACE AND TYPE—1955

			T-1		T-2		T-3		L-1		L-2		L-3		Totals		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
European	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	2
Euronesian	..	..	..	..	2	..	1	1	2	10	2	..	..	11	7	18	
Fijian	..	..	3	3	17	18	2	3	24	8	38	20	10	..	94	52	146
Solomon Islanders	..	..	..	3	2	2	2	..	3	..	3	3	2	3	12	11	23
Samoan	..	..	1	..	4	1	..	1	8	8	19	10	2	1	34	21	55
Rotuman	..	..	1	..	..	..	..	..	1	4	7	2	..	1	9	7	16
Cook Islanders	..	..	3	1	..	1	..	..	4	4	12	8	1	..	20	14	34
Niue Islanders	..	..	1	1	..	..	..	..	1	1	..	..	1	..	3	2	5
Gilbert and Ellice Islanders	..	..	6	4	10	4	1	..	13	12	37	23	5	..	72	43	115
Tongan	..	..	1	..	3	2	3	1	5	2	9	4	1	..	22	9	31
Chinese	..	..	1	..	3	..	..	..	1	..	4	..	..	..	9	..	9
Indian	..	..	9	3	11	3	1	2	49	14	86	27	2	..	158	49	207
Totals	..	..	26	15	50	33	9	8	111	56	225	99	24	5	445	216	661
			41		83		17		167		324		29		661		
			141						520								

79 per cent were lepromatous—

Of the males, 80 per cent were lepromatous.

Of the females, 74 per cent were lepromatous.

Proportions—

Samoans 87 per cent

Indians 86 per cent

Gilbert and Ellice Islands .. 78 per cent

Fijian 68 per cent

The 661 patients analysed include those who died or were discharged during the year but not those admitted during the latter half of the year.

TABLE III
RACE AND PROGRESS—1955

	Arres- ted		Quie- scent		Im- proved		Station- ary		Worse		Died		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
European	1	..	..	..	..	1	..	..	..	..	..	..	1	1	2
Euronesian .. ..	..	..	..	2	8	3	3	1	..	..	..	1	11	7	18
Fijian	12	3	8	6	63	33	8	10	1	..	2	..	94	52	146
Solomon Islanders..	1	..	2	3	9	7	..	1	..	..	..	..	12	11	23
Samoan	6	2	7	4	17	10	3	5	..	..	1	..	34	21	55
Rotuman .. ..	..	..	3	..	5	7	1	..	..	..	..	..	9	7	16
Cook Islanders ..	1	..	3	4	13	8	3	2	..	..	..	..	20	14	34
Niue Islanders ..	..	1	1	..	2	1	..	..	..	..	..	..	3	2	5
Gilbert and Ellice Islanders	3	2	20	8	36	18	13	13	..	1	..	1	72	43	115
Tongan	1	2	3	2	14	3	2	2	..	..	2	..	22	9	31
Chinese	2	..	..	..	6	..	1	..	..	..	..	..	9	..	9
Indian	20	..	16	9	77	22	40	17	..	1	5	..	158	49	207
Totals ..	47	10	63	38	250	113	74	51	1	2	10	2	445	216	661
	57		101		363		125		3		12		661		
	521						140								

Total—Arrested, Quiescent and Improved—79 per cent

Males, 81 per cent; Females, 74·5 per cent.

Samoans 84 per cent

Indians 70 per cent

Gilbert and Ellice Islands .. 76 per cent

Fijians 86 per cent

TABLE IV
PROGRESS AND TYPE OF DISEASE—1955

	T-1	T-2	T-3	L-1	L-2	L-3	Totals
Arrested	8	14	3	30	2	..	57
Quiescent	17	25	6	39	13	1	101
Improved	14	38	6	58	221	26	363
Stationary	2	5	..	35	81	2	125
Worse .. ..	..	..	1	1	1	..	3
Died . ..	..	1	1	4	6	..	12
Totals ..	41	83	17	167	324	29	661

The proportion of cases recorded as arrested, quiescent and improved has increased as compared with the figures of 1954.

5. *Treatment*—Diaminodiphenylsulphone by mouth has been the drug of choice during the year. Patients have received up to 0.4 gm. twice weekly as a maximum continuously throughout the year—this was a change from the previous regime of a maximal dosage of 0.2 gm. daily with one week's rest in 4. This change has apparently proved satisfactory and has eased the work of the staff considerably. Even patients on a very small dosage have improved. Sulphetrone injection has been used for those unable to take tablets by mouth while Thiacetazone has been the alternative for those unable to take Sulphone.

6. *Tuberculosis*—During the year seven new cases were notified: of these five were admissions including one inactive case, and two already at Makogai developed the disease: of the latter, one died. Two inactive cases were discharged. There were at the end of the year, eight active cases, 29 inactive cases and four under observation. All the part-Europeans, Fijians and Gilbertese were X-rayed and no other active cases were found.

The total number of X-ray examinations including all films taken was 542, despite the fact that the machine was out of action for five months:—

Chest	336
Hands and feet	114
Others	92

7. *Use of "Chauvire" Antigen*—A trial with this Antigen continues. No results are submitted as it is considered that further time must elapse.

8. *Lepers' Trust Board*—Once again the generosity of the Lepers' Trust Board has allowed further amenities to be planned. An Arts and Crafts School was practically completely built by the end of the year, and the Recreation Hall in the Indian Lines jointly financed by the Board and the Indian Reform League was formally opened. The Ernest Wolfgram Technical Institute has provided classes in simple carpentry and motor engineering as well as being available for many furniture repairs and remodelling. The Physiotherapeutic Department has been one of the busiest sections of the hospital.

9. *Physiotherapeutic Department*—This Department has two divisions, one for remedial exercises which 165 patients attended and one for treatment with various appliances: 250 patients attended the latter division and a total of 5,885 treatments was given. Remedial exercise classes were commenced in March 1954 and the appliances arrived later in that year.

While many of the patients attended only one of the divisions, an increasing number combined both treatment with an appliance and remedial exercises. This is the first full year of this Department, one of "settling down" to a routine programme.

Under the supervision of a Sister and a male patient, those with nerve lesions have for the most part, attended conscientiously and with enthusiasm to learn and do their exercises. The patients themselves brought into use pedestal bicycles, the base of milk separators, hand-springs etc. to assist them.

The other division has Infra-red Lamps, Ultra-violet Light, a Kromayer Lamp, Diathermy Ultra-short-wave apparatus, also a unit for providing galvanic, faradic and sinusoidal current.

Neuritis with its sequelae of trophic ulceration and muscular weakness, has been the most commonly treated condition while various other conditions e.g. asthma, fibrositis, fungous infections of the skin, have received attention. Curettage of trophic ulcers with removal of infected bone if necessary, followed by various combinations of Infra-red, Diathermy, localized Ultra-violet Light or the use of the Kromayer Lamp has resulted in healing but the permanence of such healing remains to be seen. In schoolboys, these ulcers heal rapidly but soon recur because the boys are so very active.

Many patients have commented on the increased mobility of former stiff fingers and the improved tone of their weakened muscles.

10. *General Remarks*—A Girl Guide Movement was successfully launched after several months preliminary instruction and in September, Brownies, Guides and Rangers were sworn in. The Scouts continue to be most enthusiastic.

The purchase of two Motor Scooters for use by the Sisters has greatly assisted the latter in visiting the villages for routine and emergency calls. The patients have now recovered from their initial astonishment at seeing their respected Sisters handling such a means of progression.

The construction of a 20,000 gallon reservoir and main pipe-line of approximately four miles in length was completed.

The construction of married staff quarters and an A.M.P.'s quarters was in progress at the end of the year and plans of the school for the children of the staff were received.

A tragic event was a lorry accident when it capsized killing two and injuring four members of the staff. One of the fatal casualties was the headman and leading-hand of the labour force; he had served Makogai faithfully for 27 years.

11. *Vistors*—His Eminence Cardinal Gilroy of Sydney, came to Makogai in June. Other visitors were Sir Henry Scott Q.C.: Dr. J. M. Cruikshank: Mr. W. E. Donovan: D. McCarthy, Canberra, Australia: J. A. Rosendal, Copenhagen, Denmark: Members of R.N.Z.A.F. and members of Fiji Broadcasting Commission.

12. *Conclusion*—It is with sincere appreciation that one places on record the fact that the enthusiastic and devoted service of the Sisters and lay staff has enabled this hospital to continue its happy and progressive course.

DEATHS—1955

				T-1		T-2		L-1		L-2		L-3		Totals		
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Euronesian	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Fijian	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
Indian	..	..	..	..	..	1	..	..	..	4	..	..	..	5	..	5
Samoan	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Tongan	.	..	..	..	..	2	..	..	..	..	..	..	..	2	..	2
Gilbertese	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Totals	..	..	..	..	1	3	..	..	..	6	1	1	..	10	2	12
				1		3		..		7		1		12		

Twelve deaths occurred during the year. The causes were—

Acute Heart failure	..	..	..	..	2
Chronic Heart failure	..	..	..	..	1
Coronary Thrombosis..	..	..	..	..	1
Cerebral Haemorrhage	..	..	..	..	1
Broncho-pneumonia	..	..	..	..	2
Hepatic Cirrhosis	..	..	..	..	1
Amyloidosis due to Leprosy	..	..	..	..	1
Acute Miliary Tuberculosis	..	..	..	..	1
Secondary Carcinomatosis	..	..	..	..	1
Drowning	..	..	..	..	1

ADMISSIONS—1955

				T-1		T-2		T-3		L-1		L-2		L-3		Totals		
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Fijian	..	..	..	5	1	..	..	1	..	1	2	5	2	..	1	12	6	18
Euronesian	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	2	1	3
Indian	..	..	..	1	2	..	1	1	..	..	1	9	1	1	..	12	5	17
Solomon Islander	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Chinese	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2	..	2
Rotuman	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1
Samoan	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Banaban	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Totals	..	..	..	7	3	1	3	3	..	3	3	15	4	1	1	30	14	44
				10		4		3		6		19		2		44		

DISCHARGES—1955

				Uncond.		T-1		T-2		T-3		L-1		L-2		L-3		Totals		
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
European	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1
Fijian	..	..	..	..	1	2	1	6	1	..	..	2	..	3	..	13	3	16	..	16
Indian	..	..	..	..	..	2	..	4	1	..	..	9	..	6	3	21	4	25	..	25
Chinese	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	..	2	..	2
Samoan	..	..	..	..	..	1	..	2	1	..	..	1	1	2	..	6	2	8	..	8
Solomon Islander	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1
Niue Islander	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	1
Cook Islander	..	..	..	..	..	2	..	..	..	..	..	1	..	1	..	4	..	4	..	4
Tongan	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	2	2
Gilbert Islander	..	..	..	..	..	3	..	2	..	..	..	..	..	..	..	3	2	5	..	5
Totals				..	1	10	1	14	8	..	..	12	1	14	3	1	..	51	14	65
				1		11		22		..		13		17		1		65		

INJECTIONS																LABORATORY EXAMINATIONS																				
	Sod. and Ant. Tart	Fluoresceine	Vit. B1 : B12 and Liver	Sulphetrone	Penicillin	Insulin	Lepromin	Anti-typhoid	Tetanus A.T.	Tetanus Toxoid	Marianum T & B.	Streptomycin	Planocaine	ACTH.	Various	Total Injections	Patients Dressed	Dressings	Operations	Biopsy	Post mortems	X-Rays	Physiotherapy	Dental Pro.	Extractions	Fillings	Eye tests	Diff. counts	Total R-W. counts	Fresh Blood	B.S.R.	Hb.	Urine	Helminths	Bact.	
January	18	50	58	56	21	..	..	31	5	13	69	27	2	..	23	373	3,206	5,238	4	2	..	40	285	..	2	..	..	..	91	1	91	37	14	331	
February	31	10	46	63	87	..	1	121	6	9	13	25	27	..	4	443	3,584	5,104	5	1	..	6	364	2	22	8	5	7	17	275	..	283	58	12	277	
March	19	..	40	96	130	..	..	34	3	..	11	26	21	..	3	383	3,302	5,976	21	2	..	..	205	10	7	6	5	6	3	329	33	442	47	84	297
April	4	..	28	78	16	..	55	4	5	..	11	40	20	..	23	284	3,791	5,457	3	..	..	..	353	2	14	6	127	18	24	133	..	458	40	74	353
May	9	..	26	70	81	..	..	2	2	2	..	50	25	..	8	275	3,472	4,590	7	1	1	..	578	2	17	10	6	5	12	126	9	432	50	90	351
June	10	..	35	108	25	..	..	..	..	..	..	79	19	..	1	277	3,213	4,318	3	1	..	..	568	9	7	9	5	6	4	18	14	362	41	46	559
July	..	..	29	105	45	59	12	..	2	..	..	47	40	36	16	400	3,798	6,120	12	3	1	34	439	5	24	15	8	1	4	4	1	420	111	..	456
August	12	..	27	95	47	67	..	..	5	..	..	33	33	18	5	342	4,539	6,184	6	..	..	102	557	3	28	18	4	4	8	7	43	470	79	2	538
September	41	..	54	103	72	60	..	..	8	..	..	94	22	..	54	508	3,304	5,305	17	1	..	111	637	4	10	8	1	9	14	5	4	394	102	13	193
October	4	..	15	83	49	62	59	..	5	20	..	120	1	..	5	423	2,749	3,586	12	2	..	47	794	1	1	..	3	10	18	6	2	448	118	3	517	
November	54	..	25	75	87	60	40	..	5	27	..	102	1	25	19	520	2,428	2,723	25	1	1	135	1,036	1	1	1	1	..	4	10	2	1	378	120	2	324
December	40	..	14	44	80	62	..	..	5	..	..	74	2	32	22	375	2,100	2,384	3	..	..	67	579	1	1	1	1	..	3	2	1	413	78	4	235
Total	246	65	397	976	740	370	167	192	51	71	104	717	213	111	183	4,603	39,486	56,985	118	14	3	542	6,395	40	134	82	164	72	117	998	109	4,591	881	344	4,431	

SUMMARY OF STATISTICS—1911–1955

	European	Euronesian	Solomon Islander	Fijian	Indian	Chinese	Rotuman	Samoan	Niue Islander	Cook Islander	Tongan	Banaban	Gilbert Islander	Maoris	Total
Admissions	23	58	224	957	1,434	31	111	155	15	280	75	14	239	4	3,620
Repatriations	1	3	..	..	435	..	..	22	..	..	..	..	..	..	461
Discharges	7	21	73	420	473	9	57	51	3	180	29	3	57	1	1,384
Deaths	14	16	129	397	336	15	37	35	8	70	19	..	82	3	1,161
Inmates 31/12/55 ..	1	18	22	140	190	7	17	47	4	30	27	11	100	..	614

RAINFALL—1955

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1955	7.49	6.84	23.02	5.43	9.64	8.76	2.04	2.44	4.89	4.37	7.89	13.27	96.08 Inches.

APPENDIX VIII (b)

LEPER SUB-STATION, KOROVOU, SUVA

1. Discharged cases from Makogai housed until transport arranged to their various destinations in and outside the Colony:—

	Male	Female	Total
Fijians	12	3	15
Indians	21	4	25
Tongans .. ..	..	2	2
Gilbertese	3	1	4
Cook Islanders	4	..	4
Samoans	6	2	8
Solomon Islanders	1	..	1
Chinese	2	..	2
European	1	..	1
Niue .. ..	..	1	1
	50	13	63

2. Patients housed pending removal to Makogai:—

	Male	Female	Total
Fijians	6	3	9
Indians	10	5	15
Chinese	2	..	2
Solomon Islanders	2	..	2
Samoan	1	1	2
	21	9	30

3. Patients for examination or for other reasons housed during the year:—

	Male	Female	Total
Fijians	7	2	9
Indians	7	2	9
Solomon Islanders	1	..	1
	15	4	19

4. Discharged patients from Suva Rural and Urban attending during 1955:—

	Male	Female	Total
Suva Urban	5	..	5
Suva Rural	4	1	5
	9	1	10

APPENDIX IX

CENTRAL LABORATORY SUVA

TABLE I

Details of specimens etc. examined in Central Laboratory, 1955.

1. Histology— Material from biopsies etc. 647 autopsies.. 280 Animal tissues 37 964	8. Biochemistry— Estimations in blood— Sugar 394 Non-protein nitrogen and Urea .. 481 Cholesterol 15 Uric acid 14 Estimations in serum— van den Bergh reactions 174 Icterus Index 10 Calcium 4 Proteins 78 Alkaline phosphatase 133 Thymol turbidity 132 Bilirubin 177 Acid phosphatase 22 Sodium 2 Phosphorus 4 Salicylate 65 Diastase 4 1,709
2. Haematology— Blood counts— White cell counts 3,113 Differential counts 3,078 Red cell counts. 1,608 Haemoglobin estimations 5,563 Haematocrit readings 347 Blood sedimentation rates 1,518 Blood grouping 1,494 Pretransfusion cross matching . .. 265 Donors bled for transfusion 249 Rh grouping 11 Reticulocyte counts 1,841 Marrow smears 108 Bleeding time 17 Coagulation time 17 Platelet counts 14 Prothrombin time 50 19,293	Urine— Routine and microscopic examina- tions 3,006 Excretion of ascorbic acid 876 Estimation of sugar 80 Diastase 6 Chloride 3 Bile 10 Calcium 2 Miscellaneous 19 4,002
3. Seminal Fluids— Examinations for fertility tests .. 23 23	Cerebro-spinal fluids— Cytology 309 Protein.. 309 Sugar 283 Chlorides 286 1,187
4. Parasitology— Faeces— Examinations for cysts and ova amoebae 6,072 6,072 Blood— Films for malaria 20 Microfilariae 496 516	Faeces— Occult blood 81 Fat estimation 4 85 Functional tests— Fractional test meals.. 94 Free acid estimation (single) and histamine 48 142 Urea range 12 Glucose tolerance test 87 99
5. Bacteriology— Microscopic examinations— Vaginal, urethral and cervical smears 551 Sputum 743 Stools for M tuberculosis 29 Urine for M tuberculosis 73 Skin lesions for M leprae 322 fungus 21 Miscellaneous exudates pus, etc. .. 183 Mantoux tests 49 1,971 Cultures— Gastric washings for M tuberculosis 97 Sputum 723 Faeces 216 Urine 83 Blood 72 Throat swabs 178 Conjunctival swabs 568 Cerebro-spinal fluids 278 2,214 Bacteriological examination of water etc.— Drinking water supplies 206 Milk 1 Ice Cream 24 Aerated water.. 49 Various 13 Dark field examinations for treponemata 1 294	9. Animal Inoculations— Toads for pregnancy tests 78 Guinea pigs, tuberculosis and leptospira 36 114 10. Rats for Plague 68 68 11. Forensic Medicine (Other than autopsies)— Clothing for stains (blood) 20 (seminal stains) 5 Weapons for blood 17 Vaginal swabs for spermatozoa .. 10 Blood for group 2 Tissues 2 56 12. Post Mortem Examinations— Colonial War Memorial Hospital .. 80 Maternity Annex 15 Tamavua Hospital 5 Mental Hospital 2 Police 57 159 Total 42,487
6. Serology— Agglutination tests— For typhoid and paratyphoid .. 108 Brucellosis infections (human) .. 40 (cattle) 74 Kahn Reactions 2,367 Anti Streptolysin "O" titres . .. 24 2,513 7. Vaccine Prepared— T.A.B. 50 c.c. bottles 979 Autogenous vaccines 27 1,006	

5. Number of cases receiving treatment at the Suva Clinic during the past six years:—

1950	133 cases	1953.. ..	72 cases
1951	99 cases	1954.. ..	100 cases
1952	102 cases	1955.. ..	65 cases

6. Number of cases by Race:—

European ..	Male ..	4	Female ..	..
Indians ..	Male ..	15	Female ..	3
Fijians ..	Male ..	29	Female ..	7
Others ..	Male ..	..	Female ..	7
				Total cases 65

7. *Ophthalmia Neonatorum*—Nil.

8. *Syphilis*—Three old cases and two new cases (one Indian male and one Fijian female) were treated during the year.

9. Incidence for five years showing increase and decrease of number of cases:—

1951	30 cases
1952	31 cases
1953	13 cases
1954	2 cases
1955	2 cases

10. *Leprosy*—Eleven cases were reported in Suva and the suburbs during the year. They consisted of four Fijian males, two Indian males, two Indian females, two Chinese males. One part Samoan and one Fijian male have been sent for admission to Tamavua Hospital as they were found to have both leprosy and Tuberculosis.

11. Nineteen cases admitted to the Leprosy Sub-station for investigation from country districts were examined. One was found to be non-leprous and was sent home. The other 18 were admitted to the Central Leprosy Hospital, Makogai for treatment. Two of these were recurrences in known leper patients. 218 discharged lepers were reviewed at the Leper Clinic, Suva. 319 ex-Makogai patients were issued with the prescribed maintenance dose of sulphones during the year from this Clinic.

12. *Yaws*—2275 cases were treated in the Clinic. It is expected that this number will show a marked reduction after the mass treatment teams have operated in the Suva and Suva Rural areas.

APPENDIX XI

SUVA GAOL

1. During the year Dr. G. Hallman and Dr. H. W. Conran acted as Visiting Medical Officers to the Suva Gaol. The resident A.M.P. throughout the year was A.M.P. Mahesh Prasad, who was in charge of the Infirmary.

2. Regular visits were made to the Gaol by the Visiting Medical Officers. Patients who could not receive adequate treatment in the Infirmary were referred to the Colonial War Memorial Hospital.

3. All new prisoners, who numbered 454 (429 males, 25 females), were examined on admission. Those who were sentenced to terms of imprisonment exceeding one month had a chest X-ray. Sick parades were held twice a day by the resident Assistant Medical Practitioner.

4. The following 47 patients were admitted to the Infirmary during the year and consisted of the following cases:—

Influenza	46	Fractured Clavicle . . .	1
-----------------	----	--------------------------	---

5. The following cases were transferred to the Colonial War Memorial Hospital:—

Fibroma (Subcutaneous) ..	1	For Investigation	1
Filarial Fever	1	Maternity case	1

6. Fifty-nine cases of infectious diseases were notified during the year as follows:—

Influenza	46	Gonorrhoea	7
Tuberculosis	1	Infantile Diarrhoea ..	1
Leprosy	2	Syphilis	2

7. One case of leprosy was sent to Makogai. One case of Pulmonary Tuberculosis was transferred to Tamavua Hospital.

8. No death due to sickness or accident occurred in the Gaol.

9. Four corporal punishments were inflicted; no judicial hanging took place during the year.

10. Gaol buildings, including the bakery and the kitchen, were regularly inspected and found to be satisfactory.

APPENDIX XII

SUMMARY OF FILARIASIS RESEARCH DURING 1954 AND 1955 CONDUCTED BY
MR. C. B. SYMES, O.B.E., OF HER MAJESTY'S OVERSEA RESEARCH SERVICE

1. The researches reported below have been conducted as a preliminary to an inquiry into the possibility of using insecticides for the control of mosquito vectors of filariasis in Fiji. They were necessary because of the paucity of data available on which to base experiments with insecticides. This is no new experience. It has been found in many countries in which insecticide studies or control "campaigns" have been promoted, that the available basic data on insect vectors (of malaria, of filariasis, of onchocerciasis, of sleeping sickness or of yellow fever) were quite inadequate and that much more investigation was necessary before adequate experimental control could be planned.

2. The work is being carried out by a small team of Fijian assistants under a European.

3. It should be recorded that these assistants, several of whom are on the lowest salary grade, have shown the greatest interest and zeal in learning, and carrying out their new duties. I cannot speak too highly of the readiness with which these men have accepted heavy responsibilities and frequent extra duties in the evenings, at nights, on Sundays, and holidays without recompense.

4. The investigations have so far been conducted in 22 village areas of the main islands, selected to provide conditions that are fairly representative of those occurring throughout Fiji. Some areas in the Yasawas and Lau groups have yet to be studied.

5. For each area the following investigations have been conducted.

- (i) Microscopical examination of the blood of as many as possible of the people to determine the numbers of microfilariae they have in a standard amount of blood.
- (ii) Brief examination of each person to determine those with other signs and symptoms of filariasis (e.g. enlarged glands, elephantiasis in any form, fevers, etc.)
- (iii) Recording of the age, occupation, and activities of each person to determine how much contact they may have with mosquitoes in the house or in the bush.
- (iv) Microscopical examination of blood of cattle, pigs, horses, dogs, cats, fowls, goats, birds, etc. to ascertain what filariae they may have that might be similar to and mistaken for the human filaria if found in mosquitoes. Bats, and rats were examined also, but not in area investigations.
- (v) An intensive survey of mosquito breeding grounds and of adult mosquitoes harbouring in houses and in bush. Mosquitoes in houses were caught by hand and by the use of an insecticide generator. Those in the bush were caught whilst resting in grass, in bush, on trees and leaves, and whilst coming to bite.
- (vi) Dissection and microscopical examination of adult mosquitoes caught in houses and bush to determine the species that carry human (or animal) filariae.

6. Complementary to the field investigations many special studies have been made including the following:—

- (a) Experimental feeding on infected people or animals, of mosquito species most commonly found in the investigations mentioned above, to determine their tolerance to filariae developing in them. The results of these experiments confirm or otherwise the results of the microscopical examination of mosquitoes caught in houses and in bush. They are necessary also to provide specimens of the developing forms of animal and human filariae so that correct identifications may be made of any filariae found in "wild" mosquitoes. Over fifty experimental feedings have been made on infected persons, over forty on infected fruit bats and six on dogs. We have yet to deal with a filaria in mynah birds; and of course our searches in animals may still reveal others.
- (b) Detailed observations on the effect of Hetrazan on numbers of microfilariae in the peripheral blood (in co-operation with the Physician Specialist, C.W.M. Hospital).
- (c) The food of "mosquitoes" caught in bush and in houses (in co-operation with the Lister Institute of Preventive Medicine in England).
- (d) Times of entry of mosquitoes to, and exit from, houses at night.
- (e) Sites of "resting" mosquitoes in houses (i.e. walls or roofs).
- (f) Occurrence of vector species in unoccupied country.
- (g) Mosquito adults found in tree tops (up to 60 feet) by day and night.

7. Such observations must often continue for considerable periods to provide satisfactory data.

8. Though much study is still required on some of these points, sufficient data have been collected on others to warrant the following review.

9.—(i) Of the 15 species of mosquitoes known to occur in Fiji, at least four—

Aedes pseudoscutellaris,
Aedes polynesiensis,
Aedes fijiensis, and
Culex fatigans,

are found relatively frequently in nature infected with mature infective forms of the human filaria, *Wucheraria bancrofti*. In addition they readily allow development of the filaria to the infective stage in laboratory experiments. Some of the data on which these statements are based are shown in Tables I, II and III. Table III shows infection in mosquitoes caught only in selected houses in which one or more of the occupants were infected with filariasis.

(ii) Some other species such as *Aedes vexans* and *Culex annulirostris* are occasionally found with the mature of human filaria in nature and a few have developed the worm to the infective stage in the laboratory.

(iii) The first four are widely distributed and are in close contact with man.

10. *A. pseudoscutellaris* breeds essentially in treeholes, coconut shells and peridomestic containers. It occurs not only in the vicinity of villages and towns but also in bush in unoccupied areas. It bites man readily in or near the bush, in gardens, and sometimes in houses. But apparently it also feeds on animals and birds.

11. *A. polynesiensis* which is so very like *A. pseudoscutellaris* that until recently it was not differentiated from it, appears to be confined to coastal areas. It breeds prolifically in crab holes, coconut shells and in treeholes. It bites man readily in bush, and often in houses, and like *A. pseudoscutellaris*, it seems to feed on other animals. Large numbers of adults of this species may be found on some unoccupied islands. Their food in such places has not yet been determined. In some 430 specimens of this species and *A. pseudoscutellaris* collected in bush and various places, and submitted to the precipitin test to determine what type of blood they had recently fed upon, only 38 per cent were positive to human blood, a few to horses and birds, and 53 per cent failed to react to a dozen or more common blood antisera.

12. Both of these species bite man constantly in the bush and in gardens, in coconut plantations, in villages with mango, coconut, breadfruit, etc. in the vicinity, and not infrequently in houses.

13. *Aedes fijiensis* is common in areas where the screwpine (*Pandanus tectorius*) grows, its main breeding grounds being the axils of these plants.

14. It enters houses in very large numbers at dusk and after dark, feeds readily on humans, dogs and other animals and remains in houses for considerable periods digesting its meal. We have found it in country some miles from the nearest village, breeding in the axils of other plants. There is no doubt that in occupied areas it is in very close contact with people at night in their homes, and at dusk, in the open in the vicinity of houses. In a small batch of 72 submitted to the precipitin test 80 per cent had human blood.

15. *Culex fatigans* is probably the commonest mosquito in Fiji, as it is perhaps in most parts of the tropical and sub-tropical world. It breeds freely in stagnant and often very dirty water in pools, puddles, domestic waste, septic tanks, and pit latrines, and in fact almost any open or partially covered surface water. It is found often in large numbers in houses, entering in the evening to feed and remaining to digest its meal for perhaps a day or more. In a batch of 380 tested by the precipitin method 72 per cent had human blood in the stomach.

16. It will be noted from the data shown that *C. fatigans* would appear to be appreciably less suitable for the development of filariae than the other three species mentioned in paragraph 9 (i). But this species appears to be so much more widely distributed and numerous than the others that its infective contact with people is probably closer over all than that of any other species, despite its lower degree of infectibility.

17. Amos (1947)* stated that *C. fatigans* "is a carrier and it would appear that within recent years this insect has become a very common mosquito . . ." But unfortunately the evidence on which this statement was based cannot now be found.

18. *C. fatigans* (or one of the *C. pipiens-fatigans* group), is the common vector of human periodic filariasis in most parts of the world, in which the infection exists.

19. *Aedes fijiensis* (known for many years as *Aedes kochi*) has not been incriminated before as a carrier of filariae; though *Aedes kochi* itself was shown by Backhouse and Heydon (1950)† to be an efficient vector of the periodic form of *W. bancrofti* in New Guinea and Queensland.

20. Here, *A. fijiensis* appears to be as suitable to the development of the human filaria as is *A. pseudoscutellaris* and *A. polynesiensis*. The former, (probably together with *A. polynesiensis*) has been the one accepted vector in Fiji since Sir Philip Manson-Bahr's classic work of 1912, whilst *A. polynesiensis* is the accepted vector in all territories of the S.W. Pacific to the east and south east of Fiji, except Tonga.

21. It is not possible to escape the conclusion that human filariasis, caused by *Wucheraria bancrofti*, in Fiji is carried mainly by these four species of mosquitoes. Though prolonged study over years may provide data sufficient to indicate more specifically the part played by each in total transmission, the information now available would appear to justify the opinion that all are important and that none can be ignored in any measures designed for the control of infection.

22. Infection in people occurs, according to Medical Department records, all over these islands with perhaps small gaps in the dry zones of Northern Viti Levu and Northern Vanua Levu.

23. In our small samplings the percentages of people infected with microfilariae varied from 0 (in Keiyasi) to 40 per cent (Qilai) and the incidence was about the same in Taveuni (24.5 per cent) and Savusavu (24.2 per cent) as in Southern and Eastern Viti Levu (23.9 per cent). In the relatively dry zone of Labasa it is much lower (9.9 per cent). To these figures must be added some 3 or 4 per cent for people with elephantiasis and fever, but with no apparent microfilariae in the blood.

24. Infection occurs in Fijians, in Indians living in or near villages, and in Europeans or Part-Europeans living on coconut plantations. (Our figures for the last two groups are however too small and many more should be examined).

25. In some 111 children in several Suva schools only 4 were infected. They had come from outside Suva.

26. But in the Nasese area of Suva some 22 per cent of the people examined were infected. Other suburbs have not been studied; they should be.

* AMOS D. W. (1947) *Mosquito Control*: Government Printer, Suva. Reprinted 1944.

† BACKHOUSE T. C. and HEYDON G.D.M. (1950). *Trans. R. Soc. Trop. Med. Hyg.* 44, 291

27. Intensity or degree of infection, as determined by the numbers of microfilariae in a standard volume of blood, appears to vary considerably from 8 (per 20 cubic millimetres of blood) in Viti Levu (excluding north and west) to 37 in Savusavu and 44 in Taveuni.

28. These figures are based only on small samples of population and may only be regarded as rough indications of the distribution and degrees of infection. It might well be pointed out here that no method of blood-count devised can give more than an approximate figure of the intensity of infection; and therefore one may never be certain that the absence of microfilariae in a sample of blood means a complete absence of infection.

29. Other filariae, other than *W. bancrofti*, have been found in the blood of dogs, cattle, fruit bats and in one mynah bird.

30. *Dog filaria*—The percentage of dogs infected with *Dirofilaria immitis*, the cause of heart-worm, is high. In our small samples from all study areas, nearly 66 per cent were infected.

31. The little we have done on this problem was necessary to our main study and records have been kept of the finding of dog filaria in "wild" mosquitoes, and of its development in certain species in laboratory experiments. In nature dog blood was found in *C. fatigans*, *C. annulirostris*, *A. vexans* and *A. fijiensis*, and mature forms of the filaria were also found in these. In Laboratory experiments, (which were made possible by the co-operation of Lt.-Colonel Walsh and Dr. Cook of the S.P.C.A.), development of this filaria to maturity took place in *C. fatigans*, *C. annulirostris*, *A. fijiensis* and *A. aegypti*.

32. Our data have not yet been summarized but they suggest that *C. annulirostris* and *C. fatigans* are more important than *A. aegypti*, as vectors of dog filariasis.

33. *Filaria in Bats*—No filariae have so far been found in the small cave bats, but of ninety-nine fruit bats (flying foxes) examined, thirty-one had microfilariae in the blood. These blood microfilariae are not very like those of the human filaria (*W. bancrofti*). But from laboratory experiments we know that they can develop to mature, proboscis (presumably infective) forms in at least one of the mosquitoes that are concerned with the transmission of human filariasis *A. pseudoscutellaris*. Though the developing forms of the bat filaria in this mosquito are somewhat like those of the human filaria, (*W. bancrofti*), the full grown mature forms found in the proboscis are considerably smaller and on a quick glance may well be mistaken for *Dirofilaria immitis* rather than for *W. bancrofti*. This, together with the fact that only a very small percentage of *A. pseudoscutellaris* that have been fed upon infected bats have produced mature infective proboscis forms (compared with 60 to 80 per cent in experiments with human filaria) removes any serious risk that bat filaria has been mistaken for *W. bancrofti* in our examinations of "wild" mosquitoes.

34. *Bird filaria*—No work has yet been done on the filaria found in the mynah bird. We have yet to obtain infected birds alive. It is unlikely that mosquitoes are concerned in its transmission; a mite or some other inhabitant of the nest is more probably the vector. But sufficient work must be done to show that this filaria is not occurring in wild mosquitoes and thus perhaps upsetting our records of the human filaria.

35. *Short Effect of the administration of the Drug Hetrazan on numbers of microfilariae in the peripheral blood*—The bloods of four small groups of infected men have been kept under close observation during the administration of Hetrazan in four different dosages. In the first group receiving three tablets each of 50 milligrams of the drug daily for seven days, five of the eighteen men were free from filariae from four to five weeks after treatment: the others had much reduced counts. In two batches of eleven men each one batch had six tablets (300 milligrams) a day for seven days, followed by three tablets a day for seven days; the second batch had six tablets a day for seven days only. Immediately after treatment there were four men free from microfilariae in the first batch and seven men in the second batch. In still another batch of eight men given three tablets (150 milligrams) three times a day (i.e. 450 milligrams a day) every two days for eight days, only three were negative at the end of treatment.

36. In all these men however the reduction in numbers of microfilariae was dramatic, as was the cessation of fevers in those who were experiencing them.

37. It is thought by some specialists that the effect of the drug on the filaria (perhaps on the adult) continues for several months at least after the end of treatment. Certainly it would seem that the short term results here summarized are not nearly as promising as those recorded in large scale experiments in various parts of Fiji and in Tahiti, in which blood examinations were done at six monthly or yearly intervals after treatment.

38. There is little doubt that a great deal of very careful investigation is needed to assess the true value of Hetrazan and to avoid, perhaps, serious disappointments from its use.

39. *Control*—It is too early to discuss control "campaigns". Much study remains to be done before large scale control can be properly planned.

- (i) Some of this study must however take the form of experimental control designed to determine the effect on filaria transmission of—
 - (a) mosquito control only,
 - (b) administration of drugs (Hetrazan) only,
 - (c) mosquito control and drugs combined.
- (ii) Experiments on the use of Hetrazan have already been conducted by the Director of Medical Services, with so far apparently very promising results. These, with others based upon further precise and detailed observation of small groups of individuals, if continued for some few years, should produce results on which large experiments or 'pilot' control schemes could be based.

(iii) The mosquito control measures initiated by Mr. Amos some years ago were aimed essentially at what was then thought to be the only vector of importance—the day-biting bush mosquito, *A. pseudoscutellaris*. It is now known that at that time this name included vector species and that the second one—*A. polynesiensis* breeds particularly abundantly in crab holes, though it occurs also, like *A. pseudoscutellaris* in tree holes, coconut shells and other containers. The measures initiated and applied by Amos were good. Where they were carried out they undoubtedly removed many mosquito breeding places of these two vectors from within village areas and for the 100 yards of cleared and cleaned perimeters. Later knowledge indicates however that these measures did not go far enough even for these bush mosquito vectors. They did not of course deal with the prolific crab-hole breeding, and the controlled perimeters were not wide enough. Moreover observations suggest that in very few areas have the control measures been well maintained.

40. People whose activities take them far into the bush cannot easily be protected from frequent attacks from these two widespread mosquitoes. But it should be possible to reduce their breeding grounds within a radius sufficiently large to break the close contact (i.e. the frequent biting) between the majority of people and mosquito vectors that appears to be essential for the transmission of infection.

41. The bush mosquitoes are however only half of the problem. There remain the two house-frequenting and night-biting species *Aedes fijiensis* and *Culex fatigans*. Reduction of these to insignificant numbers should not be difficult. The first depends for its large numbers on one plant that is economically important (for thatching) I believe in only a few districts. The second could not survive in the presence of adequate simple sanitation and drainage. Small experiments are in hand, or planned, to ascertain how much must be done, and can be done, by ordinary methods of mosquito control, to reduce both the bush vectors and the “domestic” vectors to insignificant numbers.

42. At the same time small trials of certain insecticides are intended to provide data on their suitability as an aid to, not a substitute for, the more permanent measures of breeding ground elimination.

TABLE I
INFECTIONS OF *W. BANCROFTI* IN “WILD” MOSQUITOES
CAUGHT IN HOUSES AND BUSH

Species	Number Examined	Per Cent with filariae All Stages	Per Cent 3rd Stages (Nearly Mature and Mature)
1st Series :—			
<i>A. pseudoscutellaris</i> } ..	828	2.8	0.12
<i>A. polynesiensis</i> ..			
<i>C. fatigans</i>	583	4.8	0.34
<i>A. fijiensis</i>	314	21.6	1.9
<i>C. annulirostris</i>	222	10.0	1.3
<i>A. vexans</i>	356	1.1	0.28
<i>A. aegypti</i>	46	15.0	0.0
<i>M. crassipes</i>	16	6.0	0.0
2nd Series :—			
<i>A. pseudoscutellaris</i>	491	5.5	0.2
<i>A. polynesiensis</i>	449	3.3	0.0
<i>C. fatigans</i>	1,067	3.5	0.56
<i>A. fijiensis</i>	68	10.3	1.5
<i>C. annulirostris</i>	500	1.0	0.0

NOTE
In the first series (published in Trans. R. Soc. Trop. Med. & Hyg. 49. 3. 1955) early third stages and mature stages were not differentiated and one or two filariae of species other than *W. bancrofti* may have been included in the third column. In the second series these stages were separated so that the third column shows *W. bancrofti* only.

TABLE II
INFECTIONS OF *W. BANCROFTI* IN MOSQUITOES FED UPON
INFECTED PEOPLE (IN 14 EXPERIMENTS)

Species	Number fed	Per Cent Infected with All Stages	Per Cent with Mature (Infective Stages Only)
<i>A. pseudoscutellaris</i>	321	83	68
<i>A. polynesiensis</i>	57	90	66
<i>A. pseudoscutellaris</i> } ..	36	50	84
<i>A. polynesiensis—mixed</i> ..			
<i>Culex fatigans</i>	194	45	50
<i>Culex fatigans</i>	377	60	46
<i>A. fijiensis</i>	231	84	61
<i>A. fijiensis</i>	76	67	85
<i>C. annulirostris</i>	116	34	0
<i>A. vexans</i>	383	26	0
<i>A. aegypti</i>	266	25	3.7

TABLE III

INFECTION IN MOSQUITOES CAUGHT IN HOUSES OCCUPIED BY ONE OR MORE INFECTED PEOPLE AND DISSECTED 12 TO 15 DAYS AFTER CAPTURE.

Species	Number Dissected	Number Infected All Stages	Number with Mature (Infective) Stage
			Per Cent
<i>A. fijiensis</i>	16	6	6
<i>A. pjiensis</i>	14	3	3
<i>A. fijiensis</i>	39	12	6
			21·7
<i>C. fatigans</i>	47	3	3
<i>C. fatigans</i>	29	3	2
<i>C. fatigans</i>	5	1	1
			7·4
<i>C. annulirostris</i>	32	3	*1
<i>C. annulirostris</i>	36	0	0
			1·5
<i>A. vexans</i>	17	0	0

* On 11th day

MEDICAL DEPARTMENT FILARIASIS AND MOSQUITO CONTROL

43. Experiments in the use of Hetrazan conducted by the Filariasis and Mosquito Control section of the Medical Department are continuing.

44. *Bega Island*—Inhabitants who on examination were found to have microfilaria in their blood were given 50 milligrams of Hetrazan three times daily for seven days. All positives at the supplementary blood re-examinations at 6 months, 12 months and 24 months after the initial treatment with Hetrazan, were re-treated with the same dosage. The results of this procedure were reported in the Medical Department Annual Report for the year 1954. In August, 1956, those who were positive on the occasion of the last blood examination will be re-examined and the positives re-treated.

45. *Tailevu Province*—Inhabitants who on examination were found to have microfilaria in their blood were given 50 milligrams of Hetrazan three times daily for three days with a re-check in 12 months when those remaining positive for microfilaria were re-treated. In August 1956, those individuals still remaining positive will be re-treated.

46. *Ra Province*—Inhabitants who on examination were found to have microfilaria in their blood were given 50 milligrams of Hetrazan on one day each month at monthly intervals. In August 1956, those individuals still remaining positive will continue the treatment.

47. The results of the above experiments to date are contained in Table IV.

TABLE IV

	At Start		After 6 Months		After 12 Months		After 24 Months	
	No.	R.P.M.	No.	R.P.M.	No.	R.P.M.	No.	R.P.M.
Bega Island—								
All positive blood cases	112	1,000	41	366	50	446	43	384
Average m/f count per 1 c.c.	39·82		2·875		4·26		4·80	
Tailevu Province—								
All positive blood cases	204	1,000	....	....	103	505	....	....
Average m/f count per 1 c.c.	23·39		.....		11·44		.....
Ra Province—								
All positive blood cases	158	1,000	30	190	26	164	22	139
Average m/f count per 1 c.c.	13·55		0·32		0·38		0·44	

R.P.M. = Rate per mille.

48. *Lakeba Island : Lau Province*—All previous Hetrazan experiments were conducted only on cases positive for microfilaria and were mainly to ascertain the most effective dosage. In April 1954, a survey was made of eight villages in Lakeba Island in the Lau Province. The whole population was blood tested for m/f and returned:—

		Males	Females	All Population
No. of Persons Examined		740	842	1,582
Microfilaria Rate per mille of total population		223	185	204

49. Results of the experiments undertaken on Lakeba Island are contained in Table V.

TABLE V
EXPERIMENTAL TREATMENT WITH HETRAZAN
LAKEBA ISLAND 1954—1955

	A	B	C	D	E	F	G	H	I
	Total Examined in 1954	M/filaria Positive in 1954	M/filaria Positive in 1954 not examined in 1955*	Total examined in 1955	M/filaria Positive 1954 Negative 1955	M/filaria Positive 1954 Negative 1955	M/filaria Negative 1954 Positive 1955	Total Positives 1955	Total Negatives 1955
Tubou	648	144	64	387	57	23	17	40	347
Waciwaci	125	16	5	118	—7	4	2	6	112
Waitabu	137	29	11	118	13	5	5	10	108
Nukunuku	94	19	5	92	5	9	6	15	77
Yadrana	241	51	11	239	25	15	12	27	212
Vakano	114	20	5	103	10	5	3	8	95
Nasaqalau	223	43	10	165	25	8	2	10	155
Total	1,582	322	111	1,222	142	69	47	116	1,106

* Moved to other islands, or died since 1954 examination.

50. *Insecticides*—Experiments have been conducted using insecticidal lacquers containing one or other of the chlorinated hydrocarbon insecticides incorporated in a urea formaldehyde resin, to determine how these formulations stand up to climatic conditions in this area, and to determine their efficacy against the local species of insects. So far the results of applications on a ship and in kitchens and other quarters, are very promising.

APPENDIX XIII NUTRITION ACTIVITIES IN FIJI—1955

1. In the earlier part of the year, lack of trained staff caused a reduction in nutrition work. Difficulties encountered in recruiting Dietitians from overseas have resulted in a revision of the staff policy. Three posts for Dietitians in main hospitals have been changed to that of Housekeeper, whilst a new post of Dietitian Supervisor has been created. Local women are now being trained by the Dietitian Supervisor to supervise catering in institutions. Although this programme has been functioning for only six months, improved methods of stores control, and food preparation are already showing good results. In addition to supervising main hospitals, the Dietitian Supervisor is responsible for inspecting food services in rural hospitals.

2. It is the aim of the Medical Department to improve the standard of institutional catering and public health nutrition work over a period of years. With this in mind a 3½ year course has been planned to train local girls to become Assistant Dietitians. The first students are due to begin their training in February 1956.

3. *Other Aspects of Institutional Catering*—Efforts to improve the quality of foods purchased by institutions have continued. Savings made through the Government bulk purchasing scheme have allowed for improvement in the nutritive value of hospital meals at no increase in total food costs.

4. Advice on ration scales, kitchen planning and equipment has continued to be given to Government institutions and other organizations responsible for feeding large numbers of people.

5. *Nutrition Education*—Courses in nutrition and dietetics have been given to nursing, medical and dental students. During the year nurses received three courses of lectures and two practical cookery courses. One course of lectures was given to junior dental students and one to senior medical students.

6. Nutrition exhibitions and discussions were arranged for the visiting World Health Organization Nursing Education Seminar.

7. Various types of visual aids for teaching nutrition have been distributed to medical centres. Pamphlets on feeding Fijian and Indian infants have been prepared for publication. These will be available in 1956.

8. Two numbers of the pamphlet “Tropical Food and Nutrition” were prepared and published. Approximately 1,600 copies were sold and distributed in Fiji.

9. Radio talks on family nutrition and cookery were prepared and given by Home Science teachers in the Fijian and Indian programmes.

10. *Research*—No food consumption surveys were conducted in 1955. The annual survey of the rate of growth of Fijian children in two Ovalau schools was continued. Both schools now have satisfactory school lunch programmes and there is a noticeable improvement in nutritional status.

11. *Improvement in Food Supplies*—There has been a limited expansion in the number of fish ponds established in the Colony. Dr. Van Pel, Fisheries Officer of the South Pacific Commission, reported that the raising of *Tilapia Mossambica* offered possibilities in Fiji. Yields of fish from small ponds in southern Viti Levu have been most encouraging.

12. There has been considerable increase in the consumption of milk products. Bulk dried skim milk powder now sells at 1s. to 1s. 3d. a pound and is becoming a regular item in the diet of Indian families.

13. Trade reports indicate a steady annual increase in the consumption of imported processed milk:—

	Tons processed milk imported	Value
1950	4,259 tons	£75,846
1955	6,565 tons	£159,608

14. It has been interesting to note the change in consumption patterns in the years 1950—1954. In 1950 sweetened condensed milk comprised 32·9 per cent, and dried milk 30·08 per cent of total imports. During the subsequent four years, the situation has been reversed. In 1954 condensed milk comprised 23·65 per cent and dried milk 37·79 per cent of total imports.

15. It is considered that the low price of dried skim milk powder, together with a consistent education programme, have brought about this change.

16. *Summary*—Owing to shortage of staff, it has not been possible to expand nutrition work in the Colony, but existing programmes have been further developed.

17. A scheme has been established for training local women to be Housekeepers and Assistant Dietitians and it is now possible to look forward to a permanent and expanding nutrition service throughout the Colony.

APPENDIX XIV (a)

CENTRAL MEDICAL SCHOOL

1. Dr. A. R. Edmonds, Assistant Principal, was confirmed in the appointment of Principal during the year. In addition the full-time staff includes:—Mr. K. J. Gilchrist, F.R.C.S., assisted by A.M.P. Ram Singh, lecturers in anatomy and surgery; Miss J. Reay, Science lecturer. The full-time lecturing staff was augmented in 1955 by the appointment of Mr. G. A. Patterson, Dental Officer; Dr. H. J. J. Whyte and Mr. L. O. Simpson were supplied by the World Health Organization for a period of two years in the first instance to lecture in physiology, biochemistry and biology, and re-organize these departments. There has been a very large increase in the amount of teaching in the pre-medical and pre-clinical years, achieved with the assistance of the two lectureships provided by the World Health Organization.

2. Part-time lecturers include the Surgeon Specialist, Physician Specialist, Pathologist, Ophthalmologist, Tuberculosis Specialist, and Medical Officers of the Colonial War Memorial Hospital, the Medical Officer of Health and members of the Health Department. Dr. D. J. Oldmeadow, a private practitioner, Honorary Obstetrician and Gynaecologist to the Colonial War Memorial Hospital undertakes the teaching of obstetrics and gynaecology, and conducts the ante-natal clinic at the Hospital. Lectures in Nutrition are given by the Senior Nutritionist, South Pacific Health Service.

3. A Cambridge School Certificate is now required for all entrants from Fiji, and something at least approaching that standard in English, Mathematics and Science from other territories. To help those territories whose educational facilities are at present inadequate to meet the requirements for direct entry to the medical and dental courses, a preliminary course in special high school subjects was instituted in 1955. To provide more training in basic science, anatomy, physiology and clinical subjects for selected students, a five-year course was inaugurated in 1951 concurrently with the four-year medical course. The graduation in December 1955 marked the end of the former four-year medical course. The graduation in December 1956 will represent the first graduates of the improved five-year medical course. The four-year course has been discontinued.

4. There were ten medical and two dental candidates in the preliminary course during 1955. Eight of these have now entered first year medicine, two are repeating the preliminary year and one has been transferred to an ancillary course. The other one has returned to his territory.

5. The Dental course, which was one of four years, has been reduced to three years. The standard of admission to this course, however, has been raised, so that students entering the course should be better fitted to cope with the subjects than previously. Furthermore, the subject of prosthetics has been removed from the dental course proper, and made a one year post-graduate course as the number of Assistant Dental Practitioners requiring this additional training in the territories is limited. There has been no actual reduction in the quality and extent of the subjects dealt with.

6. The following is an extract from the statistical data for 1955:—

	Medical	Dental
Number of students enrolled at the beginning of the year	93	28
Discharged during the year	3	1
	—	—
Remaining at the end of year	90	27
Graduated during year	2	..
Graduated at the end of year	9	11
Departed without graduating	1	1
Remaining to repeat whole or part of final year ..	4	..
Sanitation, X-ray, Laboratory and Pharmacy Course Students who lived in the School .. ..	..	26
Post-graduate students registered during 1955 .. ..	..	10

7. The Medical and Dental students in the School were drawn from ten territories apart from Fiji. The actual distribution of the various groups was as follows (at the beginning of 1955):—

Fijians (including Rotumans and Banabans)	..	43
Fiji Indians	.. .. .	18
Cook Islanders	.. .. .	6
Nauruans	.. .. .	1
New Hebrideans	.. .. .	3
Western Samoans	.. .. .	5
Eastern Samoans	.. .. .	11
Tongans	.. .. .	3
United States Trust Territories Students	.. ..	3
Solomon Islanders	.. .. .	7
Papua and New Guinea Students	.. ..	18
Niue Islanders	.. .. .	3
		<hr/> 121

8. The final year in medicine, contained at the beginning of the year 16 students. Two of these successfully passed supplementary examinations in June and qualified. Fourteen students sat the final examinations in December and nine passed and were qualified. One returned home, unqualified, and four have been referred for further study.

9. In Dentistry eleven qualified, one returned home unqualified.

10. The analysis of students who failed to continue their courses and were returned to their territories is as follows:—

One dental student was returned for health reasons. Three were returned for disciplinary reasons, all three for behaviour, and in each case, the academic achievements of these defaulters was an additional reason for their dismissal. Five other students were returned to their territories, having not come up to the academic standard required. Five students were transferred from medical and dental courses to ancillary courses.

11. As has been mentioned in previous reports, the School is continually indebted to a considerable number of people in and outside the medical department. Many of these people have full-time occupations, and cheerfully accept a considerable teaching load in addition to their other duties. In particular, we are grateful for the co-operation of the medical officers in charge, and the staff of Colonial War Memorial and Tamavua Hospitals, who have aided us considerably in both under-graduate and post-graduate teaching.

APPENDIX XIV (b)

1. *Dental School*—A total of 30 students represented the following territories in the Dental School.

United States Trust Territory	Tonga
Eastern Samoa	Niue
Western Samoa	Cook Islands
Fiji (Fijian, Indian and Part-European)	Papua and New Guinea
	New Hebrides

2. *Training*—Theory and practical instruction was given to four academic years covering the syllabus of 33 subjects. Clinical experience for the two senior years was obtained in the Clinic at Colonial War Memorial Hospital, at the Clinic in the Tamavua Hospital and on tours with A.D.P. Ravu and the Senior Dental Officer. Theory and practical instruction in the basic science subjects was given to the pre-clinical students by lecturers of the Central Medical School. Three of the senior students completed a special course in denture construction.

3. All six students of the fourth-year class graduated and also five students from the third-year class, these having received a special concentrated course of three years' duration.

4. Three silver gilt medals were awarded for the first time this year to students who showed special aptitude in certain fields of dentistry.

5. *Ancillary Dental Training Courses—Student Dental Mechanic*—One student completed his course of training and joined the staff. A further student will be engaged to maintain continuity and to provide for expected expansion in the future.

6. *Student Dental Nurse*—One girl student completed her course of training and joined the staff. A further student will commence her training in 1956. These girls will be employed mainly to assist the dental operator at the chairside, to look after sterilization of instruments and dressings, to carry out simple prophylactic treatment in the mouth, and to give instruction in dental hygiene to school children.

APPENDIX XV

NURSING DIVISION 1955

1. *Nursing Service* :—(State Registered)—

Nursing Superintendent .	1	Tutors	6
Matrons	4	Health Sisters ..	12
Assistant Matrons ..	2	Hospital Sisters ..	49
Sisters-in-Charge ..	3		—
Principal, Central Nursing School	1	Total ..	78

2. *Locally Trained Nurses* :—

Employed in Hospitals (Fijians 171, Indians 8—(including 70 nurses in 17 Rural Hospitals)	179
Employed in Districts (Fijians 146, Indians 4)	150
Nurses qualified during the year	49
Nurses qualified—Tuberculosis course	5
Partial passes	2
Nurses discontinued employment	67
Male Nurses	29
Post-Graduate six months	1
Post-Graduate Rarotonga	2

3. *Student Nurses in Training 31st December, 1955*—

Central Nursing School, Suva—

Fijians	119
Indians	1
Rotumans	4
Nauruans	2
New Guinea	3
Total	129

Student Nurses in Training for New Zealand Standard—

Fijians	6
Indians	1
Total	7

Nursing School, Lautoka Hospital—

Fijians	70
Indians	13
Part-Europeans	1
Total	84

Labasa Hospital (only first year training given then transferred to Central Nursing School)	8
---	---

Total 228

4. *Central Nursing School*—1955 was an eventful year in the history of the Central Nursing School.

Residential accommodation for the nurses was transferred to the new Central Nursing School, Tamavua;

The two-year Tuberculosis course for female and male nurses was replaced by general training;

Training for reciprocal registration in New Zealand commenced;

A World Health Organization Nursing Education Seminar of one month's duration was held in the School.

5. *Student Nurses, December 1955* :—

Central Nursing School ..	129	Fijians	203
Lautoka Hospital	84	Rotumans	4
Labasa Hospital	8	Nauruans	2
New Zealand standard of training	7	Papuans	3
	—	Indians	15
	228	Part-Europeans	1
			—
			228

Thirty-five nurses did not complete their training.

6. *Sport*—Two teams played basketball during the season. Tennis gained a number of supporters.

7. *Education*—In May 1955, 33 nurses sat the local qualifying examination for registration under the Nurses and Midwives Board of Fiji.

Passed	..	..	..	..	..	..	28
Partial passes	..	..	..	..	..	..	2
Failed	..	..	..	..	..	..	3

One candidate gained the highest aggregate marks for the Colony.

8. *Tuberculosis Training*—Students who had commenced this two-year course were allowed to transfer to the local general training if they so desired. Some students preferred to continue as Tuberculosis staff nurses.

Graduated female nurses	..	..	..	9
Graduated male nurses	..	..	..	2
				<hr/> 11

9. *Training for reciprocal registration with New Zealand*—On November 2nd 1955, seven students sat the New Zealand State Preliminary Examinations in Anatomy and Physiology, and Elementary Nursing and Hygiene under the Nurses and Midwives Board of New Zealand.

Passed	..	..	..	..	7	One student gained honours in nursing
Failed	..	..	..	..	Nil	

10. *Recruitment*—Throughout the year, schools in the Suva area were visited by the Principal. Numerous candidates presented for selection but in many cases their education was not up to standard. Once again, recruitment was difficult due to many suitably educated girls preferring teaching or clerical work.

11. *Health*—For the first part of the year, routine six-monthly medical examinations continued regularly. An improvement in the standard of general health seemed noticeable. Chest X-rays have been done regularly. No student nurse was admitted to Tamavua Chest Hospital during the year.

Students on 3/12 reviews	..	..	..	Nil
Students on 3/12 X-rays	..	..	..	4
Students rehabilitated	..	..	..	2

T.A.B. injections and smallpox vaccination are given to all nurses. Nurses are also given Tetanus Prophylactic before leaving for district work. All student nurses receive dental attention.

12. *Graduation*—The graduation ceremony was held in the Central Nursing School recreation hall. After the Director of Medical Services had opened the proceedings, the Nursing Superintendent gave an address. The Acting Governor, The Honourable A. F. R. Stoddart, C.M.G., then presented special prizes and cups. The graduates recited the Florence Nightingale pledge and the ceremony ended with an excellent short concert given by the student nurses. In the evening, the Nursing Superintendent, Principal and Tutors attended an informal buffet dinner with the graduates. The following evening, the student nurses gave a splendid Magiti (feast) and successful dance in honour of the graduates.

13. *World Health Organization Nursing Education Seminar*—In July, the second Nursing Education Seminar for the Western Pacific Region, conducted by the World Health Organization, and organized by Miss Elizabeth Hill, Assistant Chief of Nursing Section, W.H.O., Geneva was held in the Central Nursing School, Tamavua, Fiji.

Nurses from twenty countries of the Western Pacific Region, from Japan to New Zealand, met with one common purpose: the education of the nurse. The delegates represented every field of nursing and brought with them wide and varied experiences.

On Monday, July 4th 1955, The Acting Governor, The Honourable A. F. R. Stoddart, C.M.G., in the presence of many local representatives of the medical, nursing and allied professions, opened the Seminar at the Central Nursing School, Tamavua. Of the fifty-four participants present, there were selected experts from the educational field, eight were W.H.O. Nursing Education Consultants, and forty-three were participants from the various countries sent by their Governments. Board and lodging was provided at the Central Nursing School. A full Time-table of lectures in appropriate subjects was given by the W.H.O. consultants. In addition discussion groups were formed, and a number of occasions were devoted to observing the functioning of various sections of the Fiji Medical Department.

Local Clubs and prominent individuals in Suva provided social attractions. During the final week, a concert and supper party was given by the delegates to the nurses. All countries represented gave items in national dress and were accompanied by records of their own music. On behalf of the delegates, a slide and film strip projector was presented to the school in appreciation of the part played by the nurses in making the Seminar a success. A second occasion of interest was the superb farewell Magiti (feast) and concert given by the staff nurses and student nurses to the delegates the evening prior to the conclusion of the Seminar.

SUVA HEALTH OFFICE

Health Sisters, 2 (1 District, 1 School), Nurses, 8
Clinic Attendances—

Europeans	..	..	..	..	..	..	..	1,074
Part-Europeans	..	..	..	..	..	..	..	407
Fijians	..	..	..	..	..	..	..	3,882
Indians	..	..	..	..	..	..	..	2,793
Chinese	..	..	..	..	..	..	..	309
Others	..	..	..	..	..	..	..	183
								8,598
Children under 2 years seen in Health Office	..	..						4,202
Children between 2 and 5 years seen in Health Office	..							1,968
Children between 2 and 5 years seen in Mobile Clinic	..							8,429
Stools sent to Laboratory	..	..	..	..	..	..		140
Children treated for worms	..	..	..	..	..	..		157
Children vaccinated against Smallpox	..	..	..	..	..	..		956
Inoculations against Diphtheria, Whooping Cough and Tetanus	..	..	..	..	..	..	..	1,767
Inoculations against typhoid	..	..	..	..	..	..		842
Cholera inoculations	..	..	..	..	..	..		31
Homes visited	..	..	..	..	..	..	..	2,230
Children inspected in schools	..	..	..	..	..	..	..	11,591
treated for minor ailments	..	..	..	..	..	..	..	3,879
referred to Dental Clinic	..	..	..	..	..	..	..	162
Eye Clinic	..	..	..	..	..	..	..	44
treated for Nutritional defect	..	..	..	..	..	..	..	92
infected with Measles	..	..	..	..	..	..	..	1
infected with Chicken-pox	..	..	..	..	..	..	..	16
infected with Mumps	..	..	..	..	..	..	..	1

ACTIVITIES OF HEALTH SISTERS AND RURAL HEALTH NURSES BASED ON CENTRES OUTSIDE SUVA

	Lautoka	Labasa	Rewa	Ba	Tavua	Nadroga	Savusavu	Total
Attendance at Health Clinic	....	9,171	....	3,730	....	449	1,347	14,697
Schools visited	62	42	57	47	8	54	8	278
Children examined ..	6,918	3,215	14,027	4,693	14,718	5,322	395	49,288
Children seen in villages ..	....	1,297	....	....	....	5,049	254	6,600
Smallpox vaccinations ..	269	1,280	240	1,974	1,503	20	....	5,286
Ante-natal examinations ..	400	115	2,044	197	....	627	220	3,603
Homes visited	55	87	33	....	306	30	124	635
Typhoid inoculations ..	7,024	2,753	6,337	4,856	1,215	5,297	....	27,482
Diphtheria, Whooping Cough and Tetanus injection	1,599	355	452	....	152	59	....	2,617
	16,327	18,315	23,190	15,497	17,902	16,907	2,348	110,486

APPENDIX XVI

CENTRAL MEDICAL RESEARCH LIBRARY

1. The work of the Library during the year 1955, was under the following headings:—

1. Acquisition of New Books.

2. Classification of Books, Pamphlets and Reprints.

3. Cataloguing of New Materials.

4. Assistance to Readers.

5. Bibliographical work.

6. Lending books and periodicals.

7. Circulation, Distribution and Notification.

8. Indexing Periodicals.

9. Repairing and Care of Books.
2. During the year 305 volumes were added to the Library. This brings the total to 3,133 volumes in the textbook section. Pamphlets and reprints received during the year from Medical Department and Central Medical School were 81, now making a total of 468 pamphlets.
3. The method of book selection has been one of co-operation with the specialists on the staff at the C.W.M. Hospital and at the Central Medical School; other recommendations from the District Medical Officers were also received. They were invited to submit lists of suggestions and they were provided with leaflets of recent publications. The lists were checked, and submitted to the Library Committee for their approval. The following Medical Officers constituted the Library Committee:—

Dr. W. L. Verrier	..	..	..	..	..	Chairman
Dr. C. H. Gurd (Physician specialist)	..	..	..	..	..	Member
Mr. K. J. Gilchrist (Lecturer Anatomy and Surgery)	..					„
Mr. R. J. Cohen (Surgeon Specialist)	..	..	..	..	..	„
Dr. A. R. Edmonds (Principal Central Medical School)						„

4. All textbooks and Reports were classified under the Barnard classification. Pamphlets and reprints were also classified under this system. Classification of new material was one of the essential duties of the Library and much time was devoted to this subject. Periodicals were arranged in alphabetical order on the shelves and were not classified.

5. Cataloguing of new material was typed on 5" x 3" cards and were sorted in alphabetical order and stored in cabinets for reference. Entries on cards were made for "author entry", "title entry", "added entry" and entries for other main subjects. "Shelf Catalogue Cards" were also made for each textbook under its classification entry.

6. The whole library including furniture was moved to the new Central Medical School Building on 9th June, 1955. From September, the Library was made available for reading and lending during the evening under the supervision of a lecturer.

7. Bibliographical work was carried on and most questions were satisfactorily answered. Inquiries mostly came from Medical Officers, Assistant Medical Practitioners and final-year students on the following subjects:—

Parasitology,
Entomology,
Pathology,
Cardiology,
Neurology,
Ophthalmology,
Obstetrics,
Surgery, and
Dentistry.

8. Lending books and periodicals was successfully operated during the year. Most of the textbooks were borrowed by the students. A considerable number of books and journals were lent and posted to Medical Officers stationed in districts and in islands. The average attendance of the readers and borrowers was 60 daily, including Health, Pharmacy and Laboratory students. Some reference books were lent to the X-ray Department at C.W.M. Hospital under the care of the Medical Officer in charge.

9. Since the Library moved to the C.M.S. Building the work of circulation and distribution was increased. Books and periodicals which were not collected personally, were forwarded to Medical and other Officers. Duplicate issues of journals were also circulated and distributed to the Medical Officers, Assistant Medical Practitioners, Health Sisters and Health Inspectors who are stationed in districts and on islands. Notifications of recent additions of textbooks and pamphlets were typed and circulated monthly to all District Medical Officers and Medical Officers-in-charge of hospitals.

10. The following journals were received during the year:—

Abstracts of World Medicine.
Agricultural Journal (Fiji).
American College of Surgeons.
American Dental Association, the Journal of
American Journal of Physiology.
American Journal of Tropical Medicine and Hygiene.
American Medical Association, the Journal of
American Review of Tuberculosis.
Anaesthesia.
Annals of Tropical Medicine and Parasitology.
Applied Entomology.
 Series A: Agriculture
 Series B: Medical and Veterinary.
Archives of Diseases in Childhood.
Archivum Chirurgicum Neerlandicum.
Australian Journal of Medical Technology.
Australian and New Zealand Journal of Surgery.
Bacteriological Review.
Bacteriology, Journal of
Biochemical Journal.
Biological Chemistry, the Journal of
British Abstracts of Medical Science. (1 copy)
British Book News.
British Dental Journal.
British Journal of Anaesthesia.
British Journal of Experimental Pathology.
British Journal of Radiology.
British Journal of Surgery.
British Journal of Tuberculosis.
British Medical Bulletin.
British Medical Journal.
Canada's Health and Welfare.
Crown Agents Review.
Dental Journal of Australia.

Economic Entomology, Journal of
 Endeavour.
 Entomological Research, Bulletin of
 Evolution.
 Excerpta Medica.
 Anatomy, Anthropology, Embryology and Histology.
 Internal Medicine.
 Medical Microbiology, Immunology and Serology.
 Obstetric and Gynaecology.
 Public Health, Social Medicine and Hygiene.
 Surgery.
 Tuberculosis and Pulmonary Diseases.
 Experimental Medicine, the Journal of
 Export Review.
 Food and Nutrition Notes and Reviews.
 Giornale Italiano di Chirurgia.
 Hawaii Medical Journal.
 Health, Journal of Commonwealth
 Health Education Journal.
 Health Horizon.
 Health, New Zealand
 Hospital and Health Management.
 Hygiene, Bulletin of
 Hygiene, the Journal of
 Indian Journal of Medical Research.
 Lancet.
 Leprosy Brief. (Am. Lep. Foundation)
 Leprosy Review.
 Library Association Record.
 Medical Bulletin.
 Medical Clinics of North America.
 Medical Education, the Journal of
 Medical Journal of Australia.
 Medical Officer.
 Microscopical Science, the Quarterly Journal
 Ministry of Health.
 Mother and Child.
 N.A.P.T. Bulletin.
 N.A.P.T. Mass Radiography News Letter (2 copies)
 Nature.
 New Commonwealth.
 New Zealand Dental Journal.
 Nutrition, the Journal of
 Papua and New Guinea Medical Journal.
 Pathology and Bacteriology, the Journal of
 Pediatric Clinics of North America.
 Pharmacy International.
 Philosophical Transactions Roy. Soc. of London
 Series A: Mathematical and Physical Science.
 Series B: Biological Science.
 Physiology the Journal of
 Practical Mechanics.
 Practitioner.
 Proceedings of the University of Otago Medical School.
 Royal Society for the Promotion of Health Journal.
 Science News Letter.
 South Pacific Commission, Quarterly Bulletin
 Stain Technology.
 Therapeutic Notes.
 Thorax.
 Transaction of the Royal Society of Tropical Medicine and Hygiene.
 Tropical Diseases Bulletin.
 Tropical Medicine and Hygiene, the Journal of
 Tuatara.
 Tubercle.
 Tuberculosis Index and Abstracts.
 UNESCO Bulletin for Libraries.
 Visual Education, the Journal of
 West African Medical Journal (1 copy)
 WHO Publications—
 Chronicle of
 Epidemiological and Vital Statistics Report.
 International Digest of Health Legislation.
 Newsletter.
 Weekly Epidemiological Record,

11. The following B.M.A. publications were received during the year:—

1. Abstracts of World Medicine.
2. Annals of Rheumatic Diseases.
3. Archives of Diseases in Childhood.
4. British Heart Journal.
5. British Journal of Industrial Medicine.
6. British Journal of Pharmacology and Chemotherapy.
7. British Journal of Preventive and Social Medicine.
8. British Journal of Social Medicine.
9. British Medical Bulletin.
10. British Journal of Venereal Diseases.
11. Clinical Pathology, the Journal of
12. Medical and Biological Illustration.
13. Neurology, Neurosurgery and Psychiatry, the Journal of
14. New Zealand Medical Journal.
15. Thorax.

12. Salim Bakhsh, Class III Clerk, was seconded to the World Health Organization Nursing Education Seminar with effect from 27th June, 1955 till 4th August, 1955. During this period he carried out part-time duty at the Library.

APPENDIX XVII

OPHTHALMIC SURVEY OF FIJI WITH SPECIAL REFERENCE TO THE PROBLEM OF TRACHOMA

1. The following information is extracted from the report prepared by Mr. B. A. Ward M.B., B.S., (London) F.R.C.S. (England).

2. In the limited time available it was necessary to choose between a lengthy interpretation and detailed consideration of the results, and the analysis of the facts and figures in tabular forms. The Ophthalmologist considered that the latter was more important as it would be capable of expansion to a full scale report at a later date. A cross section of the population was examined in villages, schools, shops, factories, labour lines and Hospitals, where they presented themselves with symptoms.

3. 6090 persons were examined in the survey. Table I shows their race and age distribution. The age distribution of the total population at the 1946 Census is given beside it for comparison. Table II shows the geographical location of the total persons examined.

4. The incidence of Monocular blindness—53 persons out of a total of 6,090 examined, 0·8 per cent; and of Binocular blindness—35 cases or 0·57 per cent are deceptively low and create a false impression unless the age distribution of the persons examined is compared with the age distribution of the total population of the Colony, and the relation between the two has already been shown in Table I.

5. In Table VI the incidence of Binocular blindness has been corrected to show the figures which would have been obtained if the age distribution of the 6,090 persons examined in the survey had been similar to the age distribution of the total population, and this gives a figure of 73, or 1·19 per cent. Trachoma is responsible for nearly half of this blindness (two-thirds amongst Fijians) and cataract and trauma for one-fifth. Time did not permit of a similar adjustment of the figures for Monocular blindness, but it is probable that it would be approximately doubled.

6. *Trachoma*—From Mr. Ward's findings he has concluded that trachoma is the commonest eye disease in the Colony and the chief cause of blindness, and reports that Fijians are most heavily infected; that the percentage of affected persons falls from 88 per cent in the 50–60 age group to 35 per cent in the under twenties and this indicates some improvement in the last 40 years.

7. Racially the incidence diminishes through Chinese, and part-Europeans to Indians and Europeans. The apparent immunity of Indian youth is particularly interesting, as it might have been attributed to their more remote natures and less gregarious habits; however, figures for the older age groups (hospital statistics) show that at one time the race was heavily infected, so an improvement in living conditions is a more likely explanation.

8. The clinical classification originated by Professor Mann in her Australian Surveys was adopted.

Stage A:—Active Trachoma.

Stage B:—Trachoma healed with good sight.

Stage C:—Trachoma healed with impaired sight.

Stage D:—Blind from Trachoma.

9. *Diagnostic Signs*—For the purposes of the survey Mr. Ward used Ching's concept of trachoma as a triad of signs, follicles, conjunctival scarring and pannus was adopted. The diagnosis was made only when at least two of the three signs were present. The criteria adopted for activity was the presence of follicles: it was appreciated that this was not strictly true, but a degree of dogmatism was essential to facilitate analysis of the results.

10. *Cultures*—Swabs were taken from the conjunctival sacs of both eyes in cases of trachoma and follicular conjunctivitis and cultured on blood agar and chocolate agar plates: the cultures were inspected after 24 hours incubation.

11. *Diseases other than Trachoma*—Time permits consideration of only the more important conditions, and the remarks which follow, apply to cases seen both on the survey proper, and at the Colonial War Memorial Hospital and other medical establishments.

- (a) *Pterygium* is the most frequently encountered disease after trachoma—3·1 per cent compared with 56·6 per cent. Sometimes operation was indicated to prevent encroachment on to the pupillary area, and one case was blind, the nasal and temporal growths having met.
- (b) *Cataract* was the commonest condition requiring operation, occurring apparently more frequently amongst Indians than Fijians, and often in quite young people. Usually the cataracts were almost mature in both eyes before coming to hospital. Diabetes was a frequent complicating disease, but in only one or two cases was it thought to be the actual cause of cataract. Congenital cataracts are seen to be relatively common and included two interesting cases with a typical coloboma.
- (c) *Trauma* of the non-industrial type was common, often severe and usually reached hospital so late that operation could rarely give a good visual result.
- (d) *Conjunctivitis*—Acute conjunctivitis was rare; 10 cases on the survey and 14 at the Hospital (1 case of Koch-Weeks bacillus, 1 pneumococcus, the rest staphylococcal). No epidemics were encountered. Sub-acute and chronic conjunctivitis was more common and varied from a mild chronic congestive condition, to cases showing papillary hypertrophy and extensive granular changes, the cause was uncertain as a positive culture was rarely obtained from the conjunctival sac, probably sunlight, dust, and cooking smoke in the native bures reacting on a sensitive conjunctiva accounted for many cases.
- (e) *Uveitis*—Acute iridocyclitis is uncommon amongst Fijians, but a chronic type, often presenting as a vitreous haze with a few K.P., was quite frequently seen in hospital. Dental sepsis appeared to be responsible in some cases, syphilis and yaws, as judged by the Kahn reaction were an unusual cause. No filariae were observed in the ages examined, but it must be remembered that a slit lamp was not available for detailed examination.
- (f) *Squint* is rare amongst Fijians, of the few cases seen these were Europeans.
- (g) *Glaucoma*, the only acute case occurred in a European female; chronic glaucoma presented only in the late stages when extensive field loss or blindness had occurred. The disease appears to be uncommon amongst Fijians.
- (h) *Blepharitis* is rare amongst coloured people, the few cases seen were mostly in Europeans and the more lightly pigmented part-Europeans.
- (i) *Diabetic retinopathy*—Few cases were seen in the eye clinic. I understand it is rarely encountered in the medical wards, although diabetes is a common complaint amongst Indians.
- (j) *Optic atrophy* was uncommon and amongst the ascertained causes were syphilis, trauma, and meningitis.
- (k) *Bitot's spots* were noted in two Indians and one Fijian, there were no other signs of dietary deficiency and treatment with vitamins produced no effect during the period that it was possible to follow them up.

12. Benign melanomata of the conjunctiva occur frequently amongst the coloured races (far more commonly than noted on this survey), also large oblong pigmented areas in the region of the ciliary body.

TABLE I

AGE DISTRIBUTION OF PERSONS EXAMINED ON THE SURVEY

AGE DISTRIBUTION OF TOTAL POPULATION AT 1946 CENSUS FOR COMPARISON

Years	Fijians	Indians	Chinese	Part-European	European	Others	Total	Per Cent	Per Cent
0- 9 ..	811	217	64	141	140	....	1,373	22·55	32·28
10-19 ..	1,545	388	93	337	286	14	2,663	43·73	21·88
20-29 ..	598	119	18	11	1	11	758	12·45	16·11
30-39 ..	363	72	12	24	4	6	481	7·90	10·67
40-49 ..	301	37	10	16	2	3	369	6·06	6·74
50-59 ..	215	23	7	14	4	....	263	4·32	5·69
60+ ..	167	8	1	2	1	4	183	3·0	6·62
Total ..	4,000	864	205	545	438	38	6,090	....	....

TABLE II

GEOGRAPHICAL DISTRIBUTION OF ALL PERSONS EXAMINED ON SURVEY

	Fijians	Indians	Chinese	Part-Chinese	Part-Europeans	Europeans	Others	Total
Noco Village and School	169	....	....	....	....	....	....	169
Burekonoco	28	....	....	....	....	....	....	28
Lomanikoro Village	72	....	....	....	....	....	....	72
Rewa Central School	211	....	....	....	....	....	....	211
Bau	79	....	....	....	....	....	....	79
Cautata Village	174	....	....	....	....	....	....	174
Suvavou	74	....	....	....	....	....	....	74
Fiji Military Forces	282	....	....	....	....	....	....	282
P.W.D. Suva	176	104	10	....	51	7	21	369
Bish Ltd. Suva	21	41	....	....	15	2	4	83
Fiji Builders Suva.. .. .	16	20	....	1	6	1	....	44
Island Industries	38	17	1	2	6	3	2	69
Suva Shops .. .. .	....	7	32	....	....	....	1	40
Annesley Girls' School	285	....	....	....	....	....	....	285
Toge Village and Naloto School	99	....	....	....	....	....	....	99
Samabula Muslim School .. .. .	....	213	1	....	....	....	....	214
Gold Mine	68	....	....	....	....	1	2	71
Chinese Primary School .. .. .	....	....	116	42	....	....	....	158
Waikubukubu Village	58	....	....	....	....	....	....	58
Boys Grammar School .. .. .	....	....	....	....	73	146	....	219
Dama Village	47	....	....	....	....	....	....	47
Girls Grammar School .. .. .	....	....	....	....	138	278	....	416
Nalalawa Village	13	....	....	....	....	....	....	13
St. Felix College .. .. .	....	....	....	....	256	....	....	256
C.S.R. Nausori Line .. .. .	....	138	....	....	....	....	....	138
Nabua District School	235	....	....	....	....	....	....	235
Queen Victoria School	161	....	....	....	....	....	8	169
Adi Cakobau School	115	....	....	....	....	....	....	115
Sawani Village School	103	....	....	....	....	....	....	103
Mau Government School	54	....	....	....	....	....	....	54
Galoa Village	95	....	....	....	....	....	....	95
Komave Village	67	....	....	....	....	....	....	67
Vatukarasa Village	32	....	....	....	....	....	....	32
Keiyasi Village	85	....	....	....	....	....	....	85
Rukurukulevu Village	63	....	....	....	....	....	....	63
Narewa Village	103	....	....	....	....	....	....	103
Nadi District School	234	....	....	....	....	....	....	234
Shrivivekananda School	11	181	....	....	....	....	....	192
Veiseisei Village	72	....	....	....	....	....	....	72
Naboutini Village	21	....	....	....	....	....	....	21
Koroyaca Village	76	....	....	....	....	....	....	76
Koroyaca School	54	....	....	....	....	....	....	54
Vakabuli Village	31	....	....	....	....	....	....	31
Vitogo District School	68	....	....	....	....	....	....	68
Nailaga Village	71	....	....	....	....	....	....	71
Nailaga Mission School	192	....	....	....	....	....	....	192
Ba Muslim School .. .. .	....	143	....	....	....	....	....	143
Sorokoba Village	112	....	....	....	....	....	....	112
Balevuto Village	35	....	....	....	....	....	....	35
Total	4,000	864	160	45	545	438	38	6,090

TABLE IV
CAUSES OF BINOCULAR BLINDNESS (SURVEY)

FIJIANS	40-49		50-59		60+		Total
	Males	Females	Males	Females	Males	Females	
Trachoma	1	....	2	5	5	5	18
Cataract .. .. .	....	....	....	....	2	3	5
Trachoma and Trauma .. .. .	....	....	....	....	1	1	2
Trachoma and Cataract .. .. .	....	....	....	....	1	....	1
Trauma Old Perforating Wound .. .. .	....	....	1	....	....	....	1
Grossly Scarred and Disorganized Eye .. .. .	....	....	1	....	....	....	1
Kerato-Conjunctivitis	1	....	....	....	....	....	1
Glaucoma, Trachoma and Dislocated Lens .. .. .	....	....	....	....	....	1	1
Corneal Scars and Dislocated Lens .. .. .	....	....	....	....	....	1	1
Trachoma and Uveitis .. .. .	....	....	1	....	....	....	1
	2	....	5	5	9	11	32
			10		20		
INDIANS							
Trachoma and Cataract .. .. .	....	....	1	....	....	....	1
Cataract .. .. .	....	....	....	....	....	1	1
Choroidoretinal Degeneration .. .. .	....	....	1	....	....	....	1
	....	....	2	....	....	1	3
Total	2	....	7	5	9	12	35
	....	....	12		21		....

TABLE V
CAUSES OF MONOCULAR BLINDNESS (SURVEY)

				0-19		20-29		30-39		40-49		50-59		60+		Total
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
FIJIANS																
(1) Trauma—																
Old Perforating Wound .. .. .	..	..		1	..	..	..	..	1	1	..	..	..	..	3	11 } 18 3 } 1 }
Grossly Scarred and Disorganized Eye ..	..	1	..	..	..	..	..	2	1	2	1	2	2	2		
Corneal Scars .. .. .	..	..	..	..	..	..	..	1	..	..	..	1	1	1		
Eye Excised .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	..	..
(2) Trachoma .. .. .	..	..	..	..	..	..	..	2	..	1	3	6	3	3	15	
(3) Cataract .. .. .	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2	
(4) Cataract and Trachoma .. .. .	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2	
(5) Grossly Scarred and Disorganized Eye ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	
(6) Leucoma Adherens.. .. .	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	
(7) Sclerosing Keratitis . .. .	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	
(8) Eye Excised for Tumour .. .. .	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	
				1	2	1	..	..	..	6	2	8	4	11	6	....
				3		1		..		8		12		17		41
INDIANS																
(1) Trauma—																
Grossly Scarred and Disorganized Eye ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2 } 3 1 }
Old Perforating Wound .. .. .	..	1	..	1	..	..	..	..	..	..	..	..	..	..
(2) Cataract .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	
				2	..	1	..	..	..	..	..	..	1	..	4	
CHINESE																
Trauma Old Perforating Wound . .. .	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	
PART-EUROPEAN																
(1) Trauma Eye Excised .. .. .	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	
Grossly and Scarred and Disorganized Eye ..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	
(2) Trachoma .. .. .	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	
				..	..	..	..	2	..	1	..	1	..	..	4	
OTHER SOUTH PACIFIC RACES (ROTUMAN)																
(1) Trauma—																
Grossly Scarred and Disorganized Eye ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	
				3	3	2	..	2	..	7	2	9	4	13	6	
				6						9		13		19		51

TABLE VI
RE-ARRANGEMENT OF AGE DISTRIBUTION OF PERSONS SURVEYED TO CORRESPOND TO
AGE DISTRIBUTION OF TOTAL POPULATION OF THE COLONY

Years	0-9	10-19	20-29	30-39	40-49	50-59	60+	Total
Age Distribution of Persons Examined on Survey	1,373	2,663	758	481	369	263	183	6,090
Number of Blind Persons in Each Age Group	....	....	....	....	2	12	21	35
Re-Arrangement of the Age Distribution of 6,090 Persons to Correspond with the Age Distribution of the Total Population of the Colony	1,950	1,340	975	610	425	365	425	6,090
Number of Blind Persons to be Anticipated in this Event .. .. .	....	....	....	....	2.6	16.3	54.2	73

TABLE VII
CAUSES OF BINOCULAR BLINDNESS AMONGST PATIENTS SEEN AT C.W.M. HOSPITAL AND
OTHER MEDICAL CENTRES: SHOWING AGE DISTRIBUTION

Years								0-9		10-19		20-29		30-39		40-49		50-59		60+		Total	
								M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
INDIANS																							
Cataract Senile	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	6 3 1 3 3 2 1 1 1 1		10
Congenital	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..
Congenital with Coloboma of Vitreous and Retina	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glaucoma Simple	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	1	1			
Trachoma	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1			
Kerato-Uveitis	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2		
Trauma	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1		
Retinal Vascular Occlusion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1		
Uveitis and Cataract	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1		
Cataract and Retinal Vascular Occlusion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1		
Total								..	1	1	1	2	1	..	1	1	..	3	7	4	22		
Total								..	2				3				11						
FIJIANS																							
Trachoma	..	..	..	..	..	..	..	..	..	1	..	..	2	2	2	..	..	7			
Uveitis	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	2			
Glaucoma Simple	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2			
Trauma, Gross Scarring and Disorganization of Eye	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	3			
Trachoma and Glaucoma	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1			
Cataract and Vitreous Haemorrhage	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1			
Cataract and Old Perforating Wound	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1			
Pseudo-Glioma	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Choroidoretinal Degeneration and Subhyaloid Haemorrhage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1			
Total								..	1	1	..	..	1	2	..	..	3	4	7	..	19
Total								..					3				7						
EUROPEANS																							
Glaucoma Simple	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1			
PART-EUROPEANS																							
Trauma and Spontaneous Intraocular Haemorrhage	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1			
Sympathetic Uveitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1			
Total								1	1	2				
ROTUMAN																							
Uveitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1			
Total								..	2	1	2	2	1	1	3	1	..	4	8	15	5	45	
										3		3		4				12		20			

TABLE VIII
CAUSES OF MONOCULAR BLINDNESS AMONGST PATIENTS SEEN AT THE
COLONIAL WAR MEMORIAL HOSPITAL AND OTHER MEDICAL CENTRES

Years								0-9		10-19		20-29		30-39		40-49		50-59		60+		Total	
								M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
FIJIANS																							
Trauma—																							
Grossly Scarred and Disorganized Eye	1	1	1	2	..	3	..	8	
Eye Excised for Recent Perforated Wound	1	1	2	
Eye Excised Old Perforating Wound	1	1		
Recent Perforating Wound	1	1		
Corneal Scarring .. .. .								..	..	..	..	..	1	..	..	..	..	..	..	1
Adherent Leukoma .. .. .								..	..	..	..	..	..	..	..	..	..	1	..	1
Dislocated Lens .. .. .								..	..	..	..	..	..	..	..	1	..	..	..	1
Trachoma .. .. .								..	..	..	..	..	..	..	1	..	3	..	2	6
Corneal Scarring .. .. .								..	..	..	..	..	..	..	..	1	..	2	..	3
Cataract .. .. .								..	..	..	..	..	..	..	..	..	..	4	..	4
Simple Glaucoma .. .. .								..	..	..	..	..	..	..	..	1	..	..	..	1
Thrombotic Glaucoma .. .. .								..	..	..	..	..	..	..	..	..	..	..	1	1
Secondary Glaucoma .. .. .								..	..	..	..	..	..	..	..	..	..	1	..	1
Pterygium .. .. .								..	..	..	..	..	..	..	..	1	..	..	..	1
Detachment of Retina .. .. .								..	..	..	..	1	..	..	..	..	..	..	..	1
Uveitis .. .. .								..	..	..	..	..	..	1	..	..	..	..	..	1
Uveitis and Trachoma .. .. .								..	..	..	..	..	..	..	..	1	..	..	..	1
Total	3	..	2	..	2	1	2	1	10	..	13	1	35	
INDIANS																							
Trauma—																							
Grossly Scarred and Disorganized Eye .. ..								..	..	1	..	..	..	..	..	2	..	3	..	6
Old Perforating Wound .. .. .								..	1	1	..	1	..	..	1	..	..	1	..	5
Eye Excised .. .. .								..	..	..	..	2	..	1	..	1	..	..	1	5
Eye Excised for Recent Perforating Wound .								..	1	1	..	..	..	2	..	..	..	..	..	4
Hypopyon Ulcer .. .. .								..	..	..	..	..	..	2	..	5	..	..	7	
Recent Perforating Injury .. .. .								..	..	..	..	1	..	..	..	..	..	..	1	
Intraocular Haemorrhage .. .. .								..	..	1	..	..	..	..	..	..	..	..	1	
Cataract—																							
Senile .. .. .								..	..	..	..	..	..	..	..	..	2	7	6	15
Congenital .. .. .								..	..	1	..	..	..	..	..	..	..	..	..	1
Congenital with Coloboma of Vitreous and Retina								..	..	..	..	1	..	..	..	..	..	..	..	1
Trachoma—																							
Uveitis and Secondary .. .. .								..	..	..	..	..	1	..	..	1	..	5	..	7
Cataract .. .. .								..	..	..	..	..	..	4	..	..	..	1	5	
Uveitis .. .. .								..	..	..	..	..	..	..	1	..	..	2	3	
Aphakic Glaucoma .. .. .								..	..	..	..	..	..	..	..	..	2	..	2	
Optic Atrophy .. .. .								..	..	..	..	..	1	..	..	..	1	..	2	
Leukoma Adherens .. .. .								..	1	..	..	..	..	..	..	..	..	..	1	
Squint Amblyopia Exanopsia .. .. .								..	..	..	..	..	..	..	..	1	..	1		
Senile Band-Shaped Degeneration of Cornea								..	..	..	..	..	..	..	..	..	1	..	1	
Simple Glaucoma .. .. .								..	..	..	..	..	1	..	..	..	..	..	1	
Dislocated Lens .. .. .								..	..	..	..	..	..	..	1	..	..	1		
Choroidoretinal Degeneration .. .. .								..	..	..	..	..	..	..	..	..	1	..	1	
Corneal Scarring .. .. .								..	..	..	..	..	..	..	..	..	1	..	1	
Diabetic Retinitis .. .. .								..	..	..	..	..	..	..	..	..	1	..	1	
Keratitis Unknown Cause .. .. .								..	..	..	1	..	..	..	..	..	..	..	1	
Total								2	3	3	1	5	..	3	3	7	2	9	3	24	9	74	
PART-EUROPEAN																							
Trauma—																							
Eye Excised .. .. .								..	..	1	..	..	..	..	..	..	..	1	..	2
Old Perforating Wound .. .. .								..	..	..	..	..	..	..	..	..	1	1	..	2
Cataract								1	..	..	..	..	..	..	..	..	..	..	1	
Recent Perforating Wound .. .. .								..	..	..	..	..	1	..	..	..	..	..	1	
Grossly Scarred and Disorganized Eye .. ..								..	..	..	..	..	..	..	1	..	..	1		
Congenital Cataract with Aphakic Detachment of Retina .. ..								..	..	..	..	1	..	..	..	..	..	..	1	
Glaucoma Simple .. .. .								..	..	..	..	..	..	..	..	..	..	1	1	
Total								1	..	1	1	1	1	1	2	1	9		
EUROPEAN																							
Trauma—																							
Recent Perforating Wound .. .. .								..	..	1	..	..	..	..	..	..	..	..	..	1
Senile Retinal Degeneration .. .. .								..	..	..	..	..	..	..	..	..	1	..	1	
Uveitis with Secondary Cataract . . . .								..	..	..	..	..	..	..	..	1	..	..	1	
Total .. ..								..	..	1	..	..	..	..	..	..	1	1	..	3
OTHER SOUTH PACIFIC RACES																							
Trauma—																							
Grossly Scarred and Disorganized Eye								1	..	..	..	..	..	..	..	..	..	..	1	
CHINESE																							
Glaucoma Simple .. .. .								..	..	..	..	..	..	..	..	..	..	1	..	1

APPENDIX XVIII

Return of Diseases and Deaths for the year 1955, at the Colonial War Memorial Hospital, Tamavua, Lautoka, Labasa and Levuka Hospitals.

NOTE.—This classification is based on the International List of Causes of Death, 1929.

Intermediate List Number		Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
I—INFECTIVE AND PARASITIC DISEASES									
A	1	001-008	Tuberculosis of respiratory system	16	162	73	9	260	19
A	2	010	Tuberculosis of meninges and central nervous system ..	..	17	9	..	26	15
A	3	011	Tuberculosis of intestines, peritoneum and mesenteric glands ..	..	4	5	..	9	2
A	4	012, 013	Tuberculosis of bones and joints .. .. .	..	42	6	4	52	2
A	5	014-019	Tuberculosis, all other forms	2	22	8	3	35	..
A	6	020	Congenital syphilis .. .. .	..	1	3	..	4	..
A	7	021	Early syphilis .. .. .	..	1	2	..	3	..
A	8	024	Tabes dorsalis .. .. .	..	..	..	..	..	..
A	9	025	General paralysis of insane .. .. .	..	..	..	..	..	..
A	10	022, 023 026-029	All other syphilis	2	..	4	..	6	..
A	11	030-035	Gonococcal infections	3	6	21	4	34	..
A	12	040	Typhoid fever	1	9	6	..	16	..
A	13	041, 042	Paratyphoid fever and other Salmonella infections ..	..	3	1	..	4	..
A	14	043	Cholera .. .. .	..	..	..	..	..	..
A	15	044	Brucellosis (undulant fever) .. .. .	..	1	..	..	1	..
A	16	(a) 045	Bacillary dysentery	5	8	13	..	26	..
		(b) 046	Amoebiasis	16	15	24	1	56	..
		(c) 047, 048	Other unspecified forms of dysentery	1	8	17	..	26	..
A	17	050	Scarlet fever .. .. .	..	..	..	..	..	..
A	18	051	Streptococcal sore throat .. .. .	..	..	..	..	..	..
A	19	052	Erysipelas .. .. .	..	..	..	..	..	..
A	20	053	Septicaemia and pyaemia	1	4	4	..	9	6
A	21	055	Diphtheria .. .. .	..	..	1	..	1	1
A	22	056	Whooping cough .. .. .	..	..	..	..	..	..
A	23	057	Meningococcal infections .. .. .	..	..	4	..	4	1
A	24	058	Plague .. .. .	..	..	..	..	..	..
A	25	060	Leprosy .. .. .	..	3	10	1	14	1
A	26	061	Tetanus .. .. .	..	14	17	..	31	9
A	27	062	Anthrax .. .. .	..	..	..	..	..	..
A	28	080	Acute poliomyelitis	5	2	4	..	11	1
A	29	082	Acute infectious encephalitis .. .. .	..	1	2	..	3	2
A	30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis .. .. .	..	..	1	1	2	1
A	31	084	Smallpox .. .. .	..	..	..	..	..	..
A	32	085	Measles .. .. .	..	1	1	1	3	..
A	33	091	Yellow fever .. .. .	..	..	..	..	..	..
A	34	092	Infectious hepatitis	5	12	10	..	27	3
A	35	094	Rabies .. .. .	..	..	..	..	..	..
A	36	(a) 100	Louse-borne epidemic typhus .. .. .	..	..	..	..	..	..
		(b) 101	Flea-borne endemic typhus (murine) .. .. .	..	..	..	..	..	..
		(c) 104	Tick-borne epidemic typhus .. .. .	..	..	..	..	..	..
		(d) 105	Mite-borne typhus .. .. .	..	..	..	..	..	..
		(e) 102, 103 106-108	Other and unspecified typhus .. .. .	..	..	..	..	..	..
A	37	(a) 110	Vivax malaria (benign, tertian) .. .. .	..	3	..	1	4	..
		(b) 111	Malariae malaria (quartan) .. .. .	..	1	..	..	1	..
		(c) 112	Falciparum malaria (malignant tertian) .. .. .	..	1	..	..	1	..
		(d) 115	Blackwater fever .. .. .	..	..	..	..	..	..
		(e) 113, 114 116, 117	Other and unspecified forms of malaria .. .. .	..	..	..	..	..	..
A	38	(a) 123.0	Schistosomiasis vesical (<i>S. haematobium</i>) .. .. .	..	..	..	..	..	..
		(b) 123.1	Schistosomiasis intestinal (<i>S. Mansoni</i>) .. .. .	..	..	..	..	..	..
		(c) 123.2	Schistosomiasis pulmonary (<i>S. japonicum</i>) .. .. .	..	..	..	..	..	..
		(d) 123.3	Other and unspecified schistosomiasis .. .. .	..	..	..	..	..	..
A	39	125	Hydatid disease .. .. .	..	..	..	..	..	..
A	40	(a) 127	Onchocerciasis .. .. .	..	..	..	..	..	..
		(b) ..	Loiasis .. .. .	..	..	..	..	..	..
		(c) ..	Filariasis (bancrofti)	5	43	4	3	55	..
		(d) ..	Other filariasis	1	12	..	4	17	..
A	41	129	Ankylostomiasis	2	15	68	1	86	..
A	42	(a) 126	Tapeworm (infestation) and other cestode infestations ..	..	..	1	..	1	..
		(b) 130.0	Ascariasis .. .. .	..	4	15	..	19	1
		(c) 130.3	Guinea worm (<i>dracunculosis</i>) .. .. .	..	..	..	..	..	..
		(d) 124, 128 130.1, 130.2	Other disease due to helminths .. .. .	..	1	5	..	6	..
A	43	(a) 037	Lymphogranuloma venereum .. .. .	..	3	1	..	4	..
		(b) 038	Granuloma inguinale, venereal .. .. .	..	1	2	..	3	..
		(c) 039	Other and unspecified venereal diseases .. .. .	..	1	..	..	1	..
		(d) 049	Food poisoning infection and intoxication	1	3	4	..	8	..
		(e) 071	Relapsing fever .. .. .	..	..	..	..	..	..

Intermediate List Number		Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
	(f)	072	Leptospirosis icterohaemorrhagica (Weil's disease) ..	..	..	..	..	..	..
	(g)	073	Yaws .. .. .	..	14	..	2	16	..
	(h)	087	Chickenpox .. .. .	..	1	..	..	1	..
	(i)	090	Dengue .. .. .	..	..	2	..	2	..
	(j)	095	Trachoma .. .. .	..	..	..	..	..	..
	(k)	096-7	Sandfly fever .. .. .	..	..	..	..	..	..
	(l)	120	Leishmaniasis .. .. .	..	..	..	..	..	..
	(m)	121 (a)	Trypanosomiasis gambiensis .. .. .	..	..	..	..	..	..
		(b)	Trypanosomiasis rhodesiensis .. .. .	..	..	..	..	..	..
		(c)	Other and unspecified Trypanosomiasis .. .. .	..	..	..	..	..	..
	(n)	131	Dermatophytosis	1	..	..	..	1	..
	(o)	135	Scabies	1	5	13	..	19	..
	(p)	036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096-1-096-6, 096-8, 096-9, 122, 132-134, 136-138	All other diseases classified as infective and parasitic ..	3	12	12	1	28	..
II—NEOPLASMS.									
A	44	140-148	Malignant neoplasm of buccal cavity and pharynx ..	4	1	3	..	8	..
A	45	150	Malignant neoplasms of oesophagus .. .. .	..	..	..	..	..	..
A	46	151	Malignant neoplasm of stomach .. .. .	..	8	17	..	25	6
A	47	152, 153	Malignant neoplasm of intestine, except rectum ..	..	2	1	1	4	1
A	48	154	Malignant neoplasm of rectum .. .. .	..	..	8	..	8	1
A	49	161	Malignant neoplasm of larynx .. .. .	..	2	..	..	2	2
A	50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary .. .. .	..	1	1	..	2	..
A	51	170	Malignant neoplasm of breast	2	4	1	..	7	..
A	52	171	Malignant neoplasm of cervix uteri	2	11	14	2	29	2
A	53	172-174	Malignant neoplasm of other and unspecified parts of uterus ..	..	2	2	..	4	1
A	54	177	Malignant neoplasm of prostate	1	..	1	..	2	..
A	55	190, 191	Malignant neoplasm of skin	10	3	2	..	15	1
A	56	196, 197	Malignant neoplasm of bone and connective tissue ..	..	1	5	1	7	1
A	57	155, 160, 164, 165, 175, 176, 178-181, 192- 195, 198, 199	Other and unspecified sites	2	20	22	2	46	10
A	58	204	Leukaemia and aleukaemia	1	2	4	..	7	3
A	59	200-203	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	1	3	3	..	7	1
A	60	210-239	Benign neoplasms and neoplasms of unspecified nature ..	10	20	34	2	66	2
III—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES									
and									
IV—DISEASES OF THE BLOOD AND BLOOD- FORMING ORGANS.									
A	61	250, 251	Nontoxic goitre	2	2	8	..	12	..
A	62	252	Thyrotoxicosis with or without goitre	2	..	2	1	5	..
A	63	260	Diabetes mellitus	8	13	113	2	136	5
A	64 (a)	280	Beriberi	1	..	5	..	6	2
	(b)	281	Pellagra .. .. .	..	2	..	..	2	..
	(c)	282	Scurvy .. .. .	..	..	..	..	..	..
	(d)	283-286	Other deficiency states .. .. .	..	9	7	..	16	3
A	65 (a)	290	Pernicious and other hyperchromic anaemias ..	1	1	25	..	27	..
	(b)	291	Iron deficiency anaemias (hypochromic)	3	21	90	1	115	5
	(c)	292, 293	Other specified and unspecified anaemias .. .. .	..	6	73	..	79	5
A	66 (a)	241	Asthma	3	13	82	4	102	1
	(b)	240, 242-245, 253, 254, 270- 277, 287-289, 294-299	All other allergic disorders endocrine, metabolic and blood diseases	5	18	20	..	43	1
V—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS.									
A	67	300-309	Psychoses	1	5	14	..	20	..
A	68	310-324, 326	Psychoneuroses and disorders of personality ..	11	2	22	..	35	..
A	69	325	Mental deficiency .. .. .	..	2	4	..	6	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.								
A 70	330-334	Vascular lesions affecting central nervous system	2	13	25	1	41	12
A 71	340	Nonmeningococcal meningitis	2	18	19	2	41	14
A 72	345	Multiple sclerosis . . . . .	..	1	..	1	2	..
A 73	353	Epilepsy	3	10	8	..	21	2
A 74	370-379	Inflammatory diseases of eye	1	26	20	4	51	1
A 75	385	Cataract	7	19	109	1	136	..
A 76	387	Glaucoma	4	2	10	1	17	..
A 77 (a)	390	Otitis externa	2	4	7	..	13	..
(b)	391-393	Otitis media and mastoiditis	2	9	15	1	27	2
(c)	394	Other inflammatory diseases of ear	3	2	3	1	9	..
A 78 (a)	380-384, 386, 388, 389	} All other diseases and conditions of eye	5	16	33	4	58	1
(b)	341, 344 350-352, 360-369 395-398	} All other diseases of the nervous system and sense organs ..	13	16	32	4	65	4
VII—DISEASES OF THE CIRCULATORY SYSTEM.								
A 79	400-402	Rheumatic fever	4	14	83	1	102	4
A 80	410-416	Chronic rheumatic heart disease	6	18	67	2	93	14
A 81	420-422	Arteriosclerotic and degenerative heart disease	9	8	85	4	106	26
A 82	430-434	Other diseases of heart	5	16	88	2	111	10
A 83	440-443	Hypertension with heart disease	6	5	35	3	49	5
A 84	444-447	Hypertension without mention of heart	3	3	23	4	33	..
A 85	450-456	Disease of arteries	2	4	13	..	19	6
A 86	460-468	Other diseases of circulatory system	16	15	53	..	84	6
VIII—DISEASES OF THE RESPIRATORY SYSTEM.								
A 87	470-475	Acute upper respiratory infections	18	39	43	4	104	..
A 88	480-483	Influenza	14	120	252	17	403	..
A 89	490	Lobar pneumonia	15	107	111	10	243	9
A 90	491	Bronchopneumonia	7	86	121	1	215	32
A 91	492, 493	Primary atypical, other and unspecified pneumonia.. . . .	4	22	122	2	150	4
A 92	500	Acute bronchitis	8	81	130	2	221	1
A 93	501, 502	Bronchitis, chronic and unqualified	4	14	29	2	49	1
A 94	510	Hypertrophy of tonsils and adenoids	11	7	36	..	54	..
A 95	518, 521	Empyema and abscess of lung	5	5	11	1	22	2
A 96	519	Pleurisy .. . . .	..	7	10	..	17	..
A 97 (a)	523	Pneumoconiosis .. . . .	..	1	2	..	3	1
(b)	511-517, 520-522, 524-527	} All other respiratory diseases	7	17	33	3	60	1
IX—DISEASES OF THE DIGESTIVE SYSTEM.								
A 98 (a)	530	Dental Caries	5	7	13	..	25	..
(b)	531-535	All other diseases of teeth and supporting structures	2	13	15	3	33	..
A 99	540	Ulcer of stomach	4	9	26	1	40	1
A 100	541	Ulcer of duodenum	18	10	52	3	83	5
A 101	543	Gastritis and duodenitis.. . . .	9	25	77	2	113	1
A 102	550-553	Appendicitis	31	50	164	10	255	3
A 103	560, 561, 570	Intestinal obstruction and hernia	22	44	88	9	163	10
A 104 (a)	571.0	Gastro-enteritis and colitis between 4 weeks and 2 years .. . . .	..	53	39	4	96	15
(b)	571.1	Gastro-enteritis and colitis, ages 2 years and over	20	47	92	2	161	1
(c)	572	Chronic enteritis and ulcerative colitis . . . . .	..	2	2	..	4	1
A 105	581	Cirrhosis of liver	1	7	13	..	21	3
A 106	584, 585	Cholelithiasis and cholecystitis	8	7	49	2	66	2
A 107	536-539 542, 544, 545, 573-580, 582, 583, 586, 587	} Other diseases of digestive system	43	66	118	5	232	8

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
X—DISEASES OF THE GENITO-URINARY SYSTEM.								
A 108	590	Acute nephritis	3	5	18	..	26	1
A 109	591-594	Chronic, other and unspecified nephritis	2	10	35	2	49	11
A 110	600	Infections of kidney	18	37	168	8	231	4
A 111	602,604	Calculi of urinary system	4	3	37	3	47	1
A 112	610	Hyperplasia of prostate	6	3	21	2	32	6
A 113	620,621	Diseases of breast	2	9	20	2	33	..
A 114 (a)	613	Hydrocele . .. .	..	11	9	..	20	..
(b)	634	Disorders of menstruation	4	8	36	3	51	..
(c)	601,603	All other diseases of the genito-urinary system	15	31	97	3	146	..
	605-609							
	611,612							
	614-617							
	622-633							
	635-637							
XI—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM.								
A 115	640-641,681,682,684	Sepsis of pregnancy, childbirth and the puerperium .. ..	..	6	22	..	28	1
A 116	642,652,685,686	Toxaemias of pregnancy and the puerperium	2	8	61	..	71	6
A 117	643,644	Haemorrhage of pregnancy and childbirth	7	21	46	6	80	1
	670-672	Abortion without mention of sepsis or toxaemia	14	58	124	2	198	1
A 118	650							
A 119	651	Abortion with sepsis	3	5	13	1	22	..
A 120 (a)	645-649	Other complications of pregnancy, childbirth and the puerperium	21	49	220	11	301	2
	673-680							
(b)	683,687-689	Delivery without complications	47	155	585	20	807	..
	660							
XII—DISEASES OF THE SKIN AND CELLULAR TISSUE								
and								
XIII—DISEASES OF THE BONES AND ORGANS OF MOVEMENT.								
A 121	690-698	Infections of skin and subcutaneous tissue	73	341	318	20	752	3
A 122	720-725	Arthritis and spondylitis	8	28	45	1	82	..
A 123	726,727	Muscular rheumatism and rheumatism unspecified	2	12	30	1	45	..
A 124	730	Osteomyelitis and periostitis	9	53	29	1	92	..
A 125	737,745-749	Ankylosis and acquired musculo-skeletal deformities ..	1	3	..	..	4	..
A 126 (a)	715	Chronic Ulcer of Skin (including tropical ulcer)	3	13	4	1	21	..
(b)	700-714,716	All other diseases of skin	12	10	26	2	50	1
(c)	731-736,738-744	All other diseases of musculo-skeletal system	8	38	25	2	73	..
XIV—CONGENITAL MALFORMATIONS								
A 127	751	Spina bifida and meningocele	1	..	1	..	2	..
A 128	754	Congenital malformations of circulatory system	1	3	12	..	16	2
A 129	750,752,753,755-759	All other congenital malformations .. .. .	..	26	28	4	58	3
XV—CERTAIN DISEASES OF EARLY INFANCY.								
A 130	760,761	Birth injuries .. .. .	..	..	2	..	2	..
A 131	762	Postnatal asphyxia and atelectasis .. .. .	..	6	3	..	9	4
A 132 (a)	764	Diarrhoea of newborn (under 4 weeks) . .. .	..	..	1	..	1	..
(b)	765	Ophthalmia neonatorum . .. .	..	3	..	..	3	..
(c)	763,766-768	Other infections of newborn .. .. .	..	..	3	..	3	..
A 133	770	Haemolytic disease of newborn . .. .	..	2	..	..	2	1
A 134	769,771,772	All other defined diseases of early infancy	1	1	4	..	6	1
A 135	773,776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	2	5	25	..	32	11

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Total	Deaths
		XVI—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS.						
A 136	794	Senility without mention of psychosis.. .. .	2	1	6	..	9	1
A 137 (a)	788·8	Pyrexia of unknown origin	6	20	32	2	60	1
(b)	793	Observation, without need for further medical care	55	150	475	16	696	..
(c)	780-787 788·1-788·7 788·9, 789-792, 795	} All other ill-defined causes of morbidity	8	9	35	..	52	1
(d)		Born in Hospital.. .. .	..	1	..	..	1	..

“ E ” CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE).

Intermediate List Number	Detailed List Numbers	Cause Groups.	Euro.	Fijian	Indian	Other	Totals	Deaths
AE 138	E810-E835	Motor vehicle accidents	4	25	14	2	45	3
AE 139	E800-E802	} Other transport accidents	3	3	4	..	10	..
	E840-E866							
AE 140	E870-E895	Accidental poisoning	3	1	6	..	10	1
AE 141	E900-E904	Accidental falls	20	53	51	2	126	5
AE 142	E912	Accident caused by machinery	1	2	1	..	4	..
AE 143	E916	Accident caused by fire and explosion of combustible material	1	1	3	..	5	2
AE 144	E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	2	28	25	..	55	3
AE 145	E919	Accident caused by firearm .. .. .	..	4	1	..	5	..
AE 146	E929	Accidental drowning and submersion .. .. .	..	..	1	..	1	..
AE 147	(a) E920	Foreign body entering eye and adnexa	3	8	6	1	18	..
	(b) E923	Foreign body entering other orifice .. .. .	..	..	..	..	..	..
	(c) E927	Accidents caused by bites and stings of venomous animals and insects .. .. .	..	..	..	..	..	..
	(d) E928	Other accidents caused by animals .. .. .	..	..	..	..	..	..
	(e) E910, E911	} All other accidental causes .. .. .	..	..	..	..	..	..
	E913-E915							
	E921-E922							
	E924-E926							
	E930-E965							
AE 148	E970-E979	Suicide and self-inflicted injury	23	63	54	2	142	4
AE 149	E980-E985	Homicide and injury purposely inflicted by other persons (not in war)	2	6	12	1	21	..
AE 150	E990-E999	Injury resulting from operations of war .. .. .	..	1	1	..	2	..

" N "—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY).

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AN 138	N800-N804	Fracture of skull	3	10	8	1	22	5
AN 139	N805-N809	Fracture of spine and trunk	1	4	4	..	9	1
AN 140	N810-N829	Fracture of limbs	20	49	55	2	126	3
AN 141	N830-N839	Dislocation without fracture	2	9	..	..	11	..
AN 142	N840-N848	Sprains and strains of joints and adjacent muscle	3	12	4	..	19	..
AN 143	N850-N856	Head injury (excluding fracture)	4	19	11	1	35	2
AN 144	N860-N869	Internal injury of chest, abdomen and pelvis	2	4	2	..	8	..
AN 145	N870-N908	Laceration and open wounds	7	30	28	1	66	..
AN 146	N910-N929	Superficial injury, contusion and crushing with intact skin surface	4	4	7	..	15	..
AN 147	N930-N936	Effects of foreign body entering through orifice	3	3	7	1	14	..
AN 148	N940-N949	Burns	3	30	36	2	71	6
AN 149	N960-N979	Effects of poisons	7	10	10	..	27	1
AN 150	N950-N959 N980-N999	} All other and unspecified effects of external causes	3	11	7	..	21	..

APPENDIX XIX

URBAN/TOWNSHIP/RURAL SANITARY DISTRICTS OF FIJI.

REPORT OF HEALTH INSPECTORS FOR THE YEAR 1955.

1—SUMMARY OF INSPECTIONS

Type of Premises, etc.	Inspections	Re-inspec- tions	Total
House-to-house Inspection of District	35,053	14,529	49,582
Investigation of Complaints, Nuisances, etc. ..	1,062	579	1,641
New Buildings Sites—before approval	869	151	1,020
New Buildings—Works in Progress	3,383	1,298	4,681
Investigation of Infectious Disease and Disinfection	659	128	787
Shipping	104	5	109
Aircraft	278	38	316
Houses-let-as-Lodgings and Lodging Houses ..	697	230	927
Factories and Workshops	677	286	963
Cemeteries	299	126	425
Schools	322	120	442
Checking Sanitary Services (A/Cs, etc.)	585	46	631
Laundries	470	186	656
Hairdressers, Chiropodists, etc.	825	376	1,201
Foodshops, Foodstores, Markets, etc.	3,419	1,630	5,049
Eating Houses and Ice Cream Premises	1,377	686	2,063
Aerated Water and Ice Factories	293	168	461
Kava Saloons	119	71	190
Bakehouses	418	283	701
Slaughterhouses	96	52	148
Butchers' Shops	298	199	497
Food Vehicles	443	258	701
Dairies, hotels, boarding houses	24	15	39
Inspection of gang work	327	118	445
Sanitary Survey of ships	78	10	88
Theatres	41	8	49
Miscellaneous	3,740	484	4,224
Total	55,956	22,080	78,036

2—WRITTEN NOTICES, ETC., ISSUED

Intimation Notices served	7,827
Statutory Notices served	250
Buildings Surveyed for Closure or Demolition ..	150
Closing Orders served	110
Demolition Orders Served	40

Buildings Demolished after service of Orders—

By Owners	53
By Local Authority	11
Notice of Intention to Demolish served	37

3—BUILDING APPLICATIONS DEALT WITH

	Number	Value
Applications in respect of New Buildings ..	2,024	£2,263,460
Applications in respect of Alterations and Repairs	473	214,788
Applications in respect of Septic Tanks ..	179	20,614
Total	2,676	£2,498,862
Buildings Completed and Passed during the year ..	..	928
Applications Outstanding in Register (work not completed)—		
New Buildings .. ..	..	1,219
Alterations and Repairs .. ..	..	56
Septic Tanks .. ..	..	67
Building Applications lapsed .. ..	..	61
Building Applications rejected .. ..	..	16
Building Applications withdrawn .. ..	..	21

4—SUMMARY OF SANITARY IMPROVEMENTS, ETC. (ALL TYPES OF PREMISES)

Items	Ordered	Completed *
Repairing of Buildings	384	1,254
Improvements to Lighting and Ventilation of Buildings	183	113
Removal of Unauthorized Erections	225	103
Abatement of Overcrowding	373	187
New Privies (all types)	1,765	976
Repairing, Cleansing or Flyproofing of Privies	2,979	2,154
Filling in of Insanitary Privies	804	654
New Bathrooms or Washing Places	192	100
Repairing or Cleansing of Bathrooms or Washing Places	816	680
New Kitchens	289	54
Repairing or Cleansing of Kitchens	743	582
Provision of New Drains	700	449
Repairing or Cleansing of existing Drains	2,100	1,581
New Wells	181	90
Repairing or Improvement of Wells	749	474
New Water Tanks	223	162
Repairing, Screening or Cleansing of Water Tanks	676	465
Removal of Accumulations of Refuse, etc.	5,010	3,699
Clearing of Overgrowth or Long Grass	4,943	3,201
Provision of Garbage Tins	1,087	766
Abatement of Nuisances from Animals or Poultry	1,378	795
Abatement of Mosquito Breeding	2,080	1,702
Cleansing of Food Premises	1,092	918
Structural Improvements to Food Premises	216	129
Cleansing of Food Vehicles	249	224
Improvements to Food Vehicles	211	162
Cleansing or Improvement of Hairdressers Premises	291	259
Cleansing or Improvement of Laundries	168	101
Cleansing or Improvement of Schools	45	17
Cleansing or Improvement of Shipping	1	....
Impounding of Straying Cattle	72	67
Removal of Tins and Bottles	3	1
Disposal of Dead Animals	4	4
Miscellaneous	297	366
Total	30,529	53,018

5—MOSQUITO CONTROL

Premises inspected for Mosquito Larvae	38,545
Premises at which larvae found	3,624
Larval Index	9.4 per cent

6—DISINFECTION, DISINFESTATION AND FUMIGATION

Type of Premises or Vessels	Method	Number
Overseas Vessel	H.C.N.	19
Overseas Vessel	Aerosol Bomb	11
Local Vessel	H.C.N.	72
Local Vessel	Formalin, Cyllin, Zaldicide, etc.	129
Dwellings	Formalin, Cyllin, Zaldicide, etc.	115
Dwellings	Aerosol Bomb	21
Aircraft	Aerosol Bomb	384
Hospital .. .. .	.. .. .	21
Wells .. .. .	.. .. .	41
Latrines .. .. .	.. .. .	11
Miscellaneous items .. .. .	.. .. .	368
International Deratization Certificates Issued .. .. .	.. .. .	3
International Deratization Exemption Certificates Issued .. .. .	.. .. .	1
Certificate of Pratique granted .. .. .	.. .. .	9
Overseas Vessels Malarial Inspection .. .. .	.. .. .	32

7—ANTI-RAT MEASURES

Rat Poisons Set	915			
Traps Set	9,977			
	Rattus Rattus	Rattus Norvegicus	Total	
Rats Destroyed by Poisoning	440	236	676	
Rats Destroyed by Trapping	887	833	1,720	
Rats Destroyed by Fumigation—				
Overseas Shipping	1	..	1	
Local Shipping	76	..	76	
Aircraft (give details) .. .. .	..	..	..
Rats submitted for Laboratory				
Examination	14	49	63	
Rats Found Infected	—	—	—	

* This column may include work completed during the year under review but ordered during previous months.

8—SUPERVISION OF LABOUR GANGS, ETC.

Number of men employed, Clearing and Draining Work done, Loads of Refuse removed, etc.—				
Number of men employed	..	..	..	1,168
Clearing and Draining work done	..	..	..	1,909½ acres
Loads of refuse removed	..	..	..	11,230 loads
Latrine pans dealt with	..	..	..	3,232

9—FOOD INSPECTION AND SAMPLING

Unsound Foodstuffs Condemned and Destroyed—57,445 pounds.

Food and Water Samples taken—

Milk—Genuine	..	..	50	Aerated Water	..	..	38
Non-Genuine	..	..	21	Water (chemical)	..	..	2
Ice Cream—Genuine	..	..	19	Butter	..	..	2
Non-Genuine	..	..	9	Margarine	..	..	1
Fresh Water (Bact.)	..	..	129	Sea Water and Baths, etc.	..	..	20
Miscellaneous	..	..	1				

10—LEGAL PROCEEDINGS

Defendants, Offences and Results of Action—

<i>Public Health Ordinance</i>				<i>Pure Food Ordinance</i>			
Cases	..	..	165	Cases	..	..	30
Convictions	..	..	163	Convictions	..	..	25
Penalties	..	..	£372 17s. 0d.	Penalties	..	..	£154 4s. 6d.

11—REMARKS AND DETAILS OF ANY OTHER SPECIAL WORKS CARRIED OUT DURING THE YEAR UNDER REVIEW

<i>Sanitation Campaign</i>							
Squatting Slabs sold	..	..	..	..	588	£294	
Latrine Plugs sold	..	..	..	..	280	28	
Pedestal sets sold	..	..	..	..	128	256	
Pedestal seats sold	..	..	..	..	7	7	
Total					1,003	£585	

APPENDIX XX

INTERNATIONAL AIRPORT—NADI

1. Dr. D. Keating-Clay relieved Dr. L. Hatcher, 15th March 1955, and Dr. P. Downes replaced Dr. Keating-Clay on 1st November as Medical Officer, Nadi Airport. Nursing Sister Faber is at present stationed at the Airport.

2. On August 8th 1955, an adult female European resident of the Airport was admitted to Lautoka Hospital as a suspected case of typhoid fever. The diagnosis was confirmed on August 11th. The actual source of the infection was never discovered but it was suspected to have originated from inadequately prepared vegetables, obtained by the patient from a number of different sources.

3. Contacts were examined and inoculated with T.A.B. It was recommended that all persons living on the Airport should receive a prophylactic inoculation; as a result 929 persons were inoculated. No further case of typhoid fever occurred. As a result of this outbreak of typhoid fever, the recommendation was again stressed that all new personnel at the Airport should have T.A.B. Inoculations on arrival.

4. Vaccinations, inoculations and other work carried out in 1955:—

	European	Fijian and Others	Total
Smallpox vaccinations:—			
Airport personnel	96	78	174
Passengers from overseas	10	..	10
T.A.B.	944	644	1,588
A.T.S.	34	124	158
Diphtheria and Pertussis	32	..	32
Ante-natal patients seen	50	..	50
Infant Welfare	284	..	284
Minor operations	4	64	68
Medical Examinations for extension of tour for Civil Aeronautics Board (including seven officers)	22	..	22

5. *Aircraft Crash Precautions*—On Wednesday June 1st, a full scale crash exercise was carried out. This exercise was successful, no change in Medical Crash Orders was considered necessary as a result of this exercise.

6. *Mosquito Control*—Nadi Airport Mosquito Control section was placed under the control of the Medical Officer and Health Inspector as from April 1st, 1955. This arrangement has been found more satisfactory as closer supervision can now be maintained.

7. *Swimming Pool*—The Nadi Airport Club opened a new swimming pool in February, 1955. After initial difficulties concerning the operation of the filterplant, a satisfactory system of filtration was evolved. Samples for analysis have been taken at regular intervals and the results have been generally satisfactory. The pool was closed following the case of typhoid fever in August and during this period the pool was emptied and overhauled. The pool was again closed, during the poliomyelitis outbreak in the Pacific area from October 6th to December 21st.

8. *Aircraft*—1087 aircraft arrived from overseas carrying 7,124 landing passengers and 18,390 transit passengers. 373 aircraft were sprayed with aerosol insticide. The number of aircraft passing through Nadi Airport has increased during the year, and a further increase is expected in 1956.

9. The following Table indicates the number of patients seen in the Nadi Airport Dispensary.

Month	Civil Air Board	Fiji Govern- ment	European Employees				Patients in Homes	* Other Patients	Total	Fijians and Others
			P.A.A.	C.P.A.	QANTAS	TEAL				
January	159	4	20	1	37	1	....	9	231	785
February . . .	115	16	12	4	56	4	....	31	238	736
March	168	7	22	1	37	8	....	13	256	732
April	160	6	26	2	60	4	1	10	269	676
May	152	2	52	7	43	6	....	6	268	656
June	190	6	27	....	22	1	2	39	287	595
July	149	15	31	....	23	2	....	18	238	589
August	192	13	19	....	14	2	4	12	256	625
September . .	193	13	42	1	13	2	4	6	274	636
October	219	15	31	....	19	11	16	6	317	572
November . . .	229	12	15	2	25	6	34	17	340	659
December . . .	223	17	18	....	16	....	32	15	321	588
Total	2,149	126	315	18	365	47	93	182	3,295	7,849

11,144

* “ Other paticnts ” include passengers and visitors to the airport.

APPENDIX XXI

METEOROLOGICAL REPORTS FOR 1955

The following meteorological reports for the year 1955 have been supplied by the Meteo-
rological Office.

LAUCALA BAY					SUVA				
Rainfall—					Rainfall—				
Total .. ..	..	..	..	141·41"	Total .. ..	..	..	..	158·73"
Normal for 14 years ..	..	..	..	117·83"	Normal for 68/69..	..	..	..	124·25"
Departure from normal ..	..	..	..	+23·58"	Departure from normal ..	..	..	..	+33·48"
Wet days (0·01" or more)	..	..	..	251	Wet days (0·01" or more)	..	..	..	227
Wettest day—					Wettest day—				
June 21st .. ..	..	..	..	7·11"	June 21st .. ..	..	..	..	8·20"
Temperatures—					Temperatures—				
Mean Maximum .. ..	..	..	..	82·2°F	Mean Maximum .. ..	..	..	..	84·0°F
Highest recorded—					Highest recorded—				
December 21st . . .	..	..	..	89·9°F	December 11th . .	..	..	..	92·0°F
Mean Minimum .. ..	..	..	..	71·8°F	Mean Minimum .. ..	..	..	..	71·7°F
Lowest Minimum—					Lowest Minimum—				
August 17th .. ..	..	..	..	59·8°F	August 17th .. ..	..	..	..	60·5°F
Mean Temperature $\frac{1}{2}$ (Max. + Min.) ..	..	..	..	77·5°F	Mean Temperature $\frac{1}{2}$ (Max. + Min.) ..	..	..	..	77·8°F
Departure from normal ..	..	..	..	+0·5°F	Departure from normal ..	..	..	..	+0·6°F
Mean Temperature at 9 a.m. .. ..	..	..	..	78·6°F	Mean Temperature at 9 a.m. .. ..	..	..	..	79·3°F
Humidity—					Humidity—				
Mean Humidity at 9 a.m. .. ..	..	..	..	83 per cent	Mean Humidity at 9 a.m. .. ..	..	..	..	80 per cent
Bright Sunshine—									
Total Hours .. ..	..	..	..	1,985·8					
Mean Daily .. ..	..	..	..	5·44 hrs.					

NOTES

The year 1955 was considerably wetter and a little warmer than average. In fact it was the 8th wettest year since records began in 1884. February, April, July, October and November had less than average while other months were above average, some to a considerable extent. September with a total fall of 22·50" was the wettest month and the wettest September on record. And September 14th with 6·83" was the wettest September day in 68 years. The wettest day of the year occurred on June 21st with 8·20". It was also the second wettest June day since 1884.

All months except March, April and June were warmer than average, particularly September to December.

The prevailing wind was East with 42 per cent frequency and the mean speed 6·4 knots. Maximum gust of 56 knots occurred on May 10th and 11th.

There were four tropical storms of varying intensity in or near the group, none of which affected the Colony to any extent.

